

মিটিং রেজল্যুশন বহি
MEETING RESOLUTION BOOK

মিটিং নং / Meeting No.	
তারিখ / Date	16/06/2023

উপস্থিত সভ্যগণের নাম
NAME OF MEMBERS PRESENT

স্থান / Place	Principal's chamber
সময় / Time	2.30 pm.

১। 1.	Atul Rana	৮। 8.
২। 2.	Dipak Shom	৯। 9.
৩। 3.	Pragna Paramita Mondal	১০। 10.
৪। 4.	Asis Bhattacharya	১১। 11.
৫। 5.	Barun Rout	১২। 12.
৬। 6.	Nilanjana Bhattacharyya	১৩। 13.
৭। 7.		১৪। 14.

১৫। 15.
১৬। 16.
১৭। 17.
১৮। 18.
১৯। 19.
২০। 20.
২১। 21.



NARAJOLE RAJ COLLEGE
(NAAC Accredited B grade)
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211



Notice

Dated: 12.06.2023

Notice is hereby given that the first meeting of the newly formed academic committee will be held on June 16, 2023, Friday at 2.00 pm. in the Principal's Chamber to discuss the following agenda. Please, make it convenient to join the meeting.

Agenda:

1. Ongoing academic activities and space for improvement.
2. Miscellaneous, if any, with the permission of the chair

Signature of the Principal
Dr. Basudev Mandal

Signature of the Convenor
Dr. Akul Rana

Copy forwarded for information and necessary action to:

1. Dr. Nilanjana Bhattacharyya-Member Nilanjana Bhattacharyya 16.06.2023
2. Dr. Tapanendu Kamilya-Member Tapanendu Kamilya
3. Dr. Uttam Kumar Kanp-Member
4. Prof. Pragna Paramita Mondal-Member Pragna Paramita Mondal 16.06.2023
5. Dr. Dipak Shom -Member Dipak Shom 16/06/2023
6. Prof. Asis Bhattacharyya-Member Asis Bhattacharyya 16/06/2023
7. Prof. Barun Rout-Member Barun Rout 16/06/23
8. Sri Suvadip Samanta-Member



Proceedings of the meeting of the Academic Committee held on 16-06-2023
(Friday) at 2.00 pm

Venue: Principal's Chamber

The meeting was chaired by Dr. Basudev Mandal, the Principal of the College and Chairman of the Academic Committee. Detailed discussions took place on the agenda ongoing academic activities of the college and the following resolutions were adopted:

1. The Head of all academic departments will submit class allotted/ taken reports to the convenor of academic committee (from the coming Semester) and the committee suggests the Principal for betterment, if any, after analyzing the reports quarterly.
2. (i) The main framework of the academic routine will be done by Dr. T. Kamilya and thereafter the routine of arts department will be prepared by Prof. A. Bhattacharyya and Dr. D. Shom. The routine of science department will be prepared by Dr. A. Rana and Dr. U. Kanp.
(ii) The Academic calendar will be prepared by Dr. U. K. Kanp.
(iii) Dr. D. Shom will take care of the remedial classes.
(iv) Online records of academic activities will be preserved by Prof. B. Rout.
(v) University examination and internal evaluation as per academic calendar will be conducted by the existing Examination Committee.
3. The Principal Dr. Basudev Mandal will meet all faculties of the academic department separately for the betterment of academic activities and a provisional schedule for this purpose is to be prepared by the convenor of the Academic Committee.
4. A detailed discussion regarding faculty exchange programme(FEP) with nearby colleges was discussed and resolved that an initiative for FEP will be taken by the concerned department and the matter be discussed in the forthcoming meeting with the departments.

As there was no further agenda for discussion, the meeting ended with a reciprocal vote of thanks to and from the Chair.

CONVENOR
(DR. AKUL RANA)

CHAIRMAN
(DR. BASUDEV MANDAL)

ROUTINE SCIENCE (JULY' 2023 – DECEMBER' 2023)

DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
MON	I	H		BOT MJ, UKK, L1 CHEM MJ, XXX GEO SEC IB COM. L MATH MJ, AR, DEPT PHYS MJ, AP, GEN LAB ZOO MJ-PAM	BOT, MI, UKK, L1 CHEM MI, MS MATH MI, SJ, DEPT PHYS MI, TK, GEN LAB ZOO MI-PAM PHYSIO_HONS- MIN_TH_SKK	HONS-ENVS_TH	BOT MJ, SEC, SKD, L2 CHEM SEC1P, XXX GEO MJ SM1 GEO.L MATH SEC1T, SP	BOT MJ SEC, BH, L1 CHEM SEC1P, XXX GEO MJ IB GEO.L MATH SEC1P, SP	
		G	ZOO MJ-PAM MATH MJ, SJ, DEPT	BOT MJ, BH, L2 PHYSIO_PASS-MAJ- A_TH_SKK	BOT MI BH, L2 PHYS PASS MI, SH, DEPT ANNEX PHYSIO_PASS-MIN- C TH_SKK	PASS-ENVS_TH	BOT, SEC, UKK, L1 PHYSIO_PASS- SEC-1_PRAC_SKK	BOT, SEC, SKD, L1 MATH SEC1P, AR	
	III	H	CHEM C5P, MS, IORG LAB GEO C7T MMM GEO.L ZOO_C6T_PD	BOT C5P SKD L3 CHEM C5P, MS, IORG LAB GEO C5T SM1 GEO.L MATH C6, SP, TR PHYS C5P, XXX, COMP LAB	BOT C5P SKD L3 CHEM C5T, BS, COMP LAB GEO C5T IB GEO. L MATH C7P, AR, COM. L PHYS C5P, XXX, COMP LAB	BOT C6T BH L2 CHEM C6T, BKM, ORG LAB GEO C6T SM2 S7 MATH C5, SJ, DEPT PHYS C6T, AP, DEPT ANNEX ZOO C5T-PAM	CHEM C7T, SB, IORG LAB GEO C5T IB S7 MATH C5, SJ, DEPT PHYS C7T, TK, DEPT ANNEX ZOO C5P-PAM	CHEM GE3P, MS, IORG LAB PHYS GE3P, AP, ELECTRIC LAB PHYSIO_GE-3P_SKK	CHEM GE3P, MS, IORG LAB PHYS GE3P, AP, ELECTRIC LAB PHYSIO_GE-3P_SKK
		G	PHYS DSC1CT, SH, ELECTRIC LAB						
	V	H		BOT DSE1T BH L3 CHEM DSE1P, SB, IORG LAB GEO DSE-2 MMM S7 MATH C11, SJ, F5 PHYS DSE1T, TK, ELECTRIC LAB ZOO DSE1T-BM	BOT DSE1T BH L2 CHEM DSE1P, SB, IORG LAB GEO DSE-1 SM2 S7 MATH C12, SP, S4 PHYS DSE2T, AP, ELECTRIC LAB ZOO DSE1P-BM	CHEM C12T, SB, IORG LAB GEO DSE-II MMM GEO.L MATHC12, SP, F.ANNEX PHYS C12T, TK, ELECTRIC LAB	BOT C12T BH L1 CHEM DSE1T, MS, F5 GEO C12P SM-2 COM.L MATH DSE1, AR, A2 PHYS DSE2T, SH, ELECTRIC LAB	BOT C12P UKK L2 CHEM C11P, BKM, IORG LAB GEO C12P SM-2 COM.L MATH C11, SJ, DEPT ZOO C11T-PAM	BOT C12P UKK L2 CHEM C11P, BKM, IORG LAB GEO C12T SM1 GEO.L ZOO C11P-PAM
		G							



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
TUE	I	H		BOT MJ, AC, L1 CHEM MJ TH/PRAC, SB GEO MJP SD GEO. L MATH MJ, SP PHYS MJ, AIM, GEN LAB ZOO MJ-RKK	BOT, MJ, PG, L1 CHEM MJ PRAC, SB GEO MJP SD GEO. L MATH MJ, SP ZOO MJ-RKK	AECC_ENGLISH	BOT MI, AC, L1 CHEM MI TH/PRAC, MS PHYS MI PRAC, AP, GEN LAB ZOO MI-RKK PHYSIO_HONS_MIN_T H_PD	BOT MI PG, L1 CHEM MI TH/PRAC, MS PHYS MI PRAC, AP, GEN LAB ZOO MI-RKK	
		G	MATH MJ, SRP, DEPT	BOT MJ, UKK, L2 MATH MJ, SJ ZOO MJ-PAM PHYSIO_PASS_MAJ- A_PRACT_PD	BOT MJ, NB, L2 ZOO MJ-PAM	AECC_ENGLISH	BOT, MI BH, L2 MATH MI, SJ PHYS PASS MI PRAC, SH, GEN LAB PHYSIO_PASS_MIN- C_TH_PD	BOT MI NB L2 PHYS PASS MI PRAC, SH, GEN LAB	
	III	H	GEO C7T SD GEO. L PHYS C6T, SD, DEPT ANNEX ZOO C7T-PC PHYSIO_GE-3T_PD	BOT C5T NB L3 CHEM C7T, SMA, IORG LAB GEO C5T IB S7 MATH C7T, SRP, F.ANNEX PHYS C5T, TK, DEPT ANNEX ZOO C7P-PC	BOT C7T AC L3 CHEM C6T, MS, IORG LAB GEO C6T SM2 S7 MATH C5, SJ, F.ANNEX PHYS C6T, AP, DEPT ANNEX ZOO_C6P_PD	BOT C7T PG L2 CHEM C5T, MS, ORG LAB MATH C6, SP, DEPT PHYS C7T, SH, DEPT ANNEX ZOO_C6P-PD	BOT GE3P NB L3 CHEM GE3T, XXX, ORG LAB PHYS GE3T, AIM, DEPT ANNEX ZOO GE3T-PC	BOT SEC3 BH L3 CHEM C6P, BKM, ORG LAB MATH C6, SP, DEPT PHYS C6P, SD, ELECTRIC LAB ZOO GE3P-PC	BOT SEC3 BH L3 CHEM C6P, BKM, ORG LAB MATH C7P, AR, COM. L PHYS C6P, SD, ELECTRIC LAB
		G	CHEM DSC3T, SB, IORG LAB	PHYS DSC1CT, SH, OPTIC LAB	BOT DSC2CT UKK L2	BOT SEC AC L3 CHEM DSC3P, SMA, CH L	CHEM DSC3P, SMA, CH L MATH SEC1, SP, COM. L	MATH DSC1C, SJ, DEPT	
	V	H		BOT C11P AC L3 CHEM C11T, BKM, COMP LAB MATH DSE1, AR, DEPT PHYS C11T, SD, ELECTRIC LAB	CHEM C12T, SMA, COMP LAB GEO C11P SM2 COM. L MATH DSE1, AR, DEPT PHYS DSE1T, AIM, ELECTRIC LAB ZOO DSE2T-PC	BOT DSE2T BH L1 CHEM DSE2T, SB, IORG LAB GEO DSE-1 SD GEO. L MATH C11, SJ, F5 PHYS DSE2T, AP, ELECTRIC LAB ZOO C12T-PAM	BOT C12T UKK L1 CHEM C12P, SB, IORG LAB GEO C11P SD GEO. L MATH DSE2, SRP, DEPT PHYS C12P, TK, ELECTRIC LAB ZOO C12T-PAM	BOT C12T UKK L1 CHEM C12P, SB, IORG LAB GEO C11T IB GEO. L MATH DSE2, SRP, DEPT PHYS C12P, TK, ELECTRIC LAB ZOO C12P-PAM	BOT DSE2T PG L2 GEO DSE-II IB GEO. L PHYS DSE2T, SH, GEN LAB ZOO C12P-PAM
		G		BOT DSE2AT UKK L2			BOT DSE2AT PG L2	BOT DSE 1AT AC L2	



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
WED	I	H		BOT MJ, SKD, L1 CHEM MJ, SMA GEO MJP IB GEO. L MATH MJ, SP, DEPT PHYS MJ, AP, GEN LAB ZOO MJ-RKK	BOT, MI, SKD, L1 CHEM MI, MS PHYS MI, AP, GEN LAB ZOO MI-RKK PHYSIO_HONS_MIN _TH_PD	HONS_MDC_TH	HONS-ENVS_TH	GEO SECP IB COM. L PHYS SEC1 PRAC, AP, COMP LAB ZOO SEC1P-RKK	PHYS SEC1 PRAC, AP, COMP LAB
		G	MATH MJ, SP, DEPT	BOT MJ, NB, L2 PHYSIO_PASS_MAJ- A_TH_PD	BOT MI, NB, L2 PHYS PASS MI, XXX, ELECTRO LAB PHYSIO_PASS_MIN- C_TH_PD	PASS_MDC_TH	PASS-ENVS_TH		
	III	H		BOT C7P AC L3 CHEM C5T, MS, IORG LAB GEO SEC-1SD S7 MATH C7T, SRP,DEPT PHYS C5T, AIM, ELECTRIC LAB	BOT C7T AC L3 CHEM C6T, SMA, IORG LAB GEO C6T IB GEO.L MATH C6, SP, F.ANNEX PHYS C7T, XXX, DEPT ANNEX	BOT C6T PG L2 CHEM C7T, SMA, IORG LAB GEO C6P IB GEO. L MATH C6, SP, TR PHYS C6T, SD, DEPT ANNEX ZOO C5T-RKK	BOT C7P NB L3 CHEM GE3T, SMA, CH LAB PHYS GE3T, SD, ELECTRIC LAB ZOO C5P-RKK PHYSIO_GE-3T_PD	BOT C7P NB L3 CHEM C7P, SMA, IORG LAB MATH C7T, SRP, DEPT PHYS C7P, XXX, ELECTRO LAB	CHEM C7P, SMA, IORG LAB MATH C7T, SRP, DEPT PHYS C7P, XXX, ELECTRO LAB ZOO GE3P-PC
		G		PHYS DSC1CP, SD, OPTIC LAB	MATH DSC1C, SRP, COM.L PHYS DSC1CP, SD, OPTIC LAB	BOT SEC 1T NB L3 CHEM DSC3T, XXX, IORG LAB	BOT DSC2CT AC L1	BOT DSC2CP AC L2	BOT SEC BH L1 PHYS DSC1CT, SD, ELECTRIC LAB
	V	H	CHEM DSE2P, SB, ORG LAB GEO DSE-1 SM2 GEO. L	BOT C12P BH L2 CHEM DSE2P, SB, ORG LAB GEO C11P SM2 COM. L ZOO DSE2T-PC	BOT C12P BH L2 CHEM C11T, XXX, COMP LAB GEO C11P SD COM. L PHYS C11T, AIM, ELECTRIC LAB ZOO DSE2T-PC	BOT C11T AC L1 CHEM DSE1T, MS, ORG LAB GEO DSE-1 SM2 S7 MATH DSE2, SRP, F.ANNEX PHYS DSE2T, AP, ELECTRIC LAB ZOO DSE2P-PC	BOT C12T SKD L1 CHEM DSE2T, SB, ORG LAB GEO C12T IB S7 MATH DSE2, SRP, DEPT PHYS C11P, AIM, COMP LAB ZOO DSE2P-PC	BOT DSE2P PG L1 CHEM C11P, MS, IORG LAB MATH C12, SP, DEPT PHYS C11P, AIM, COMP LAB ZOO DSE2P-PC	BOT DSE2P PG L2 CHEM C11P, MS, IORG LAB
		G		BOT DSE2AT PG L2		BOT SEC-3T BH L1	BOT DSE2AT PG L2		

15/07/23
 Registrar
 Registrar's Office
 Faculty of Science
 UPM



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
THUR S	I	H	PHYS MJ, AIM, GEN LAB	BOT MJ, BH, L1 CHEM MJ TH/PRAC, SMA MATH MJ, SRP ZOO MJ-RKK	BOT, MJ, NB, L1 CHEM MJ PRAC, BKM GEO MJ SD S7 MATH MJ, SJ ZOO MJ-RKK	BOT, MI, BH, L1 CHEM MI TH/PRAC, BKM GEO MJ SD S7 PHYS MI, TK, GEN LAB PHYSIO_HONS_MIN PRAC_PD	BOT MI, AC L1 CHEM MI PRAC, XXX ZOO MI-RKK	BOT MJ SEC, NB, L1 CHEM SEC1, BKM MATH SEC1, SJ PHYS SEC1 PRAC, AIM, COMP LAB ZOO SEC1P-RKK	PHYS SEC1 PRAC, AIM, COMP LAB
		G		BOT MJ, NB, L2 MATH MJ, AR PHYSIO_PASS_MAJ- A_TH_PD	BOT MJ BH, L2	BOT MI AC L2 PHYS PASS MI, XXX, DEPT ANNEX	BOT, MI PG L2 MATH MI, SRP PHYSIO_PASS_MIN-C _PRAC_PD	BOT MJ SEC AC, L2 PHYSIO_PASS_SEC-1 _TH_PD	MATH MJ, SJ, DEPT
	III	H	GEO C6T IB GEO. L ZOO C5T-PAM	BOT C5P PG L3 CHEM C5P, XXX, IORG LAB GEO C7T MMM GEO. L MATH C5, SJ, DEPT PHYS C5P, AIM, COMP LAB ZOO C5P-PAM	BOT C5P PG L3 CHEM C5P, XXX, IORG LAB GEO C6P MMM GEO. L MATH C7T, AR, F.ANNEX PHYS C5P, AIM, COMP LAB ZOO_C6T_PD	BOT C5T NB L2 CHEM C6T, XXX, IORG LAB GEO C6P MMM GEO. L MATH C7T, AR, F.ANNEX PHYS SEC1T, SH, ELECTRO LAB ZOO SEC2T-RKK	BOT C6P UKK L3 CHEM C7T, SMA, IORG LAB PHYS C7T, TK, DEPT ANNEX	BOT C6P UKK L3 BOT GE3P BH L 2 CHEM GE3P, XXX, IORG LAB PHYS GE3P, AP, ELECTRIC LAB ZOO GE3T-PAM PHYSO_GE-3P_PD	BOT GE3P BH L 2 CHEM GE3P, XXX, IORG LAB PHYS GE3P, AP, ELECTRIC LAB ZOO GE3P-PAM PHYSO_GE-3P_PD
		G	CHEM DSC3P, XXX, CH LAB	CHEM DSC3P, XXX, CH LAB		CHEM DSC3T, XXX MATH DSC1C, SJ, COM.L		MATH SEC1, SRP, COM.L	
	V	H	PHYS C12P, AP, ELECTRIC LAB	BOT DSE2P UKK L2 CHEM C11T, BKM, ORG LAB PHYS C12P, AP, ELECTRIC LAB	BOT DSE2P UKK L2 CHEM C12T, SMA, PHYS LAB GEO C11T IB S7 MATH DSE2, SRP, DEPT PHYS C12T, AP, ELECTRIC LAB ZOO C11T-PAM	BOT C11T PG L1 CHEM DSE1T, SMA, ORG LAB GEO DSE-1 SD S7 MATH DSE2, SRP, DEPT PHYS DSE1T, AIM, ELECTRIC LAB ZOO C11P-PAM	BOT DSE1T NB L1 CHEM DSE2T, BKM, ORG LAB GEO C11T SD GEO. L MATH C11, SJ, DEPT PHYS DSE2T, SH, ELECTRIC LAB ZOO C12T-PAM	BOT C11T PG L2 CHEM C12P, SMA, ORG LAB GEO DSE-2 MMM GEO. L MATH DSE1, AR, DEPT PHYS C12T, TK, ELECTRIC LAB	BOT C11T AC L1 CHEM C12P, SMA, ORG LAB
		G							


 Registrar
 American River College
 1000 University Ave.
 Yuba City, CA 95992



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
FRI	I	H		HONS_ENVS_PRACT	HONS_ENVS_PRACT	HONS_MDC_TH	AECC_ENGLISH	BOT MJ SEC, PG, L1 CHEM SEC1 PRACT, SMA GEO MJ SM1 GEO. L MATH SEC1, AR PHYS SEC1 PRACT, AIM, COMP LAB ZOO SEC1P-RKK	CHEM SEC1 PRACT, SMA PHYS SEC1 PRACT, AIM, COMP LAB
		G		PASS_ENVS_PRACT	PASS_ENVS_PRACT	PASS_MDC_TH	AECC_ENGLISH	BOT, SEC, SKD, L1 ZOO SEC1P-PC PHYSIO_PASS_SEC-1 _TH_SKK	
	III	H	CHEM C7P, SMA, IORG LAB PHYS C6P, AP, ELECTRIC LAB	BOT GE3P NB L1 CHEM C7P, SMA, IORG LAB GEO C7T SD GEO. L MATH C6, SP, F.ANNEX PHYS C6P, AP, ELECTRIC LAB ZOO C7T-PAM	BOT C6P PG L1 CHEM SEC1T, SB, ORG LAB GEO C5T SM1 GEO. L MATH SEC1, SP, F.ANNEX PHYS C5T, AIM, GEN LAB ZOO C7P-PAM ZOO_C6T_PD	BOT SEC UKK L1 CHEM C5T, SB, IORG LAB GEO 5T SM1 GEO. L MATH C5, SJ, F.ANNEX PHYS SEC1T, XXX, GEN LAB ZOO_C6T_SKK	BOT C7T NB L1 BOT GE3T BH L3 CHEM GE3T, SMA, IORG LAB PHYS GE3T, XXX, GEN LAB PYSIO_GE-3T_PD	BOT GE3T BH L3 CHEM SEC1P, SB, IORG LAB MATH C5, SJ, DEPT ZOO GE3T-PAM	BOT C6T PG L3 CHEM SEC1P, SB, IORG LAB PHYS C5T, TK, ELECTRO LAB ZOO GE3P-PC
		G	PHYS DSC1CP, XXX, ELECTRIC LAB	BOT DSC2CT SKD L3 PHYS DSC1CP, XXX, ELECTRIC LAB	BOT DSC2CP SKD L3	BOT DSC2CP SKD L3	BOT SEC1T, SKD, L3 MATH SEC1, SJ, COM.L	MATH DSC1C, SP, COM.L	
	V	H		BOT DSE1P BH L2 CHEM C12T, SB, CH LAB GEO C12T IB S7 MATH DSE1, AR, DEPT PHYS C11T, AIM, GEN LAB ZOO C11T-RKK	BOT DSE1P BH L2 CHEM C11T, BKM, CH LAB GEO DSE-2 IB S7 MATH C11, SJ,F.ANNEX PHYS DSE1T, TK, ELECTRIC LAB ZOO C11P-RKK	BOT DSE1P NB L2 CHEM DSE2T, BKM, ORG LAB GEO DSE-2 IB S7 MATH DSE1, AR, DEPT PHYS C11P, AIM, COMP LAB ZOO C12T-PAM	GEO C12P SD COM. L CHEM DSE2P, BKM, ORG LAB MATH C12, SP,S2 PHYS C11P, AIM, COMP LAB ZOO C12P-PAM	BOT DSE1T NB L2 CHEM DSE2P, BKM, ORG LAB GEO C12P SD COM. L PHYS C12T, AP, GEN LAB	BOT DSE1T NB L2
		G					BOT DSE2AP PG L2		

15/11/20


DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5	
SAT	I	H		HONS_ENVS_TH	HONS_MDC_TH					
		G		PASS_ENVS_TH	PASS_MDC_TH					
	III	H	CHEM C6P, BKM, ORG LAB MATH C7P, AR, COM.L ZOO_C6P_SKK	BOT C6T PG L1 CHEM C6P, BKM, ORG LAB GEO SEC-1 SM1 GEO. L MATH C7T, AR, COM.L PHYS C7P, SD, ELECTRO LAB ZOO_C6P_SKK	BOT C5P NB L1 CHEM SEC1T, SB, CH LAB GEO C7T MMM GEO. MATH SEC1, SJ, TR PHYS C7P, SD, ELECTRO LAB ZOO_C6T_PD	BOT C5P NB L1 CHEM GE3T, SMA ORG LAB GEO C7T SD GEO. L PHYS GE3T, AIM, GEN LAB PHYSIO_GE-3T_PD				
		G		DSC1CT, XXX		MATH DSC1C, SJ, COM.L				
	V	H	GEO C12T SM1 GEO. L	BOT DSE1P NB L2 CHEM DSE1T, SB, IORG LAB GEO C11T SD S7 MATH C11, SJ, F.ANNEX PHYS DSE1T, AIM, ELECTRIC LAB ZOO DSE2T-RKK	BOT C11P PG L2 CHEM DSE1P, BKM, IORG LAB GEO DSE-1 SD S7 MATH C12, SP, DEPT PHYS C11T, AIM, ELECTRIC LAB ZOO DSE2P-RKK	BOT C11P PG L2 CHEM DSE1P, BKM, IORG LAB MATH C12, SP, S4 PHYS DSE1T, TK, ELECTRO LAB ZOO DSE1T-BM	ZOO DSE1T-BM			
		G		BOT DSE2AT UKK L3 ZOO DSE1AT-PAM	BOT DSE2AP UKK L3 ZOO DSE1AP-PAM	BOT DSE2AP UKK L3 ZOO SEC1T-PAM				



ROUTINE SCIENCE (JULY' 2023 – DECEMBER' 2023)

DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
MON	I	H		BOT MJ, UKK, L1 CHEM MJ, XXX GEO SEC IB COM. LAB MATH MJ, AR, DEPT PHYS MJ, AP, GEN LAB ZOO MJ-PAM	BOT, MI, UKK, L1 CHEM MI, MS MATH MI, SJ, DEPT PHYS MI, TK, GEN LAB ZOO MI-PAM PHYSIO_HONS- MIN_TH_SKK	HONS-ENVS_TH	BOT MJ, SEC, SKD, L2 CHEM SEC1 PRAC, BS GEO MJ SM1 GEO.L MATH SEC1T, SP	BOT MJ SEC, BH, L1 CHEM SEC1 PRAC, BS GEOMJ IB GEO.L MATH SEC1P, SP	
		G	ZOO MJ-PAM MATH MJ, SJ, DEPT	BOT MJ, BH, L2 PHYSIO_PASS-MAJ- A_TH_SKK	BOT MI BH, L2 PHYS PASS MI, SH, DEPT ANNEX PHYSIO_PASS-MIN- C TH_SKK	PASS-ENVS_TH	BOT, SEC, UKK, L1 PHYSIO_PASS- SEC-1_PRAC_SKK	BOT, SEC, SKD, L1 MATH SEC1P, AR	
	III	H	CHEM C5P, MS, IORG LAB GEO C7T MMM GEO.L ZOO_C6T_PD	BOT C5P SKD L3 CHEM C5P, MS, IORG LAB GEO C5T SM1 GEO.L MATH C6, SP PHYS C5P, XXX, COMP LAB	BOT C5P SKD L3 CHEM C5T, BS, COMP LAB GEO C5T IB GEO. L MATH C7P, AR, COM. L PHYS C5P, XXX, COMP LAB	BOT C6T BH L2 CHEM C6T, BKM, ORG LAB GEO C6T SM2 S7 MATH C5, SJ, DEPT PHYS C6T, AP, DEPT ANNEX ZOO C5T-PAM	CHEM C7T, SB, IORG LAB GEO C5T IB S7 MATH C5, SJ, DEPT PHYS C7T, TK, DEPT ANNEX ZOO C5P-PAM	CHEM GE3P, MS, IORG LAB PHYS GE3P, AP, ELECTRIC LAB PHYSIO_GE-3P_SKK	CHEM GE3P, MS, IORG LAB PHYS GE3P, AP, ELECTRIC LAB PHYSIO_GE-3P_SKK
		G	PHYS DSC1CT, SH, ELECTRIC LAB	CHEM DSC3T, BKM					
	V	H		BOT DSE1T BH L3 CHEM DSE1P, SB, IORG LAB GEO DSE-2 MMM S7 MATH C11, SJ, PHYS DSE1T, TK, ELECTRIC LAB ZOO DSE1T-BM	BOT DSE1T BH L2 CHEM DSE1P, SB, IORG LAB GEO DSE-1 SM2 S7 MATH C12, SP, S4 PHYS DSE2T, AP, ELECTRIC LAB ZOO DSE1P-BM	CHEM C12T, SB, IORG LAB GEO DSE-II MMM GEO.L MATHC12, SP, F.ANNEX PHYS C12T, TK, ELECTRIC LAB	BOT C12T BH L1 CHEM DSE1T, MS, F5 GEO C12P SM-2 COM.L MATH DSE1, AR, A2 PHYS DSE2T, SH, ELECTRIC LAB	BOT C12P UKK L2 CHEM C11P, BKM, IORG LAB GEO C12P SM-2 COM.L MATH C11, SJ, DEPT ZOO C11T-PAM	BOT C12P UKK L2 CHEM C11P, BKM, IORG LAB GEO C12T SM1 GEO.L ZOO C11P-PAM
		G							


 Head of Department
 Department of Science
 Government College
 Bangalore



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
TUE	I	H		BOT MJ, AC, L1 CHEM MJ TH/PRAC, SB GEO MJP SD GEO. L MATH MJ, SP PHYS MJ, AIM, GEN LAB ZOO MJ-RKK	BOT, MJ, PG, L1 CHEM MJ PRAC, SB GEO MJP SD GEO. L MATH MJ, SP ZOO MJ-RKK	AECC_ENGLISH	BOT MI, AC, L1 CHEM MI TH/PRAC, MS PHYS MI PRAC, AP, GEN LAB ZOO MI-RKK PHYSIO_HONS_MIN_T H_PD	BOT MIPG, L1 CHEM MI PRAC, MS PHYS MI PRAC, AP, GEN LAB ZOO MI-RKK	
		G	MATH MJ, SRP, DEPT	BOT MJ, UKK, L2 MATH MJ, SJ ZOO MJ-PAM PHYSIO_PASS_MAJ- A_PRACT_PD	BOT MJ, NB, L2 ZOO MJ-PAM	AECC_ENGLISH	BOT, MIBH, L2 MATH MI, SJ PHYS PASS MI PRAC, SH, GEN LAB PHYSIO_PASS_MIN- C_TH_PD	BOT MI NB L2 PHYS PASS MI PRAC, SH, GEN LAB	
	III	H	GEO C7T SD GEO. L ZOO C7T-PC PHYSIO_GE-3T_PD	BOT C5T NB L3 CHEM C7T, SMA, IORG LAB GEO C5T IB S7 MATH C7T, SRP, F.ANNEX PHYS C5T, TK, DEPT ANNEX ZOO C7P-PC	BOT C7T AC L3 CHEM C6T, MS, IORG LAB GEO C6T SM2 S7 MATH C5, SJ, F.ANNEX PHYS C6T, AP, DEPT ANNEX ZOO_C6P_PD	BOT C7T PG L2 CHEM C5T, MS, ORG LAB MATH C6, SP, DEPT PHYS C7T, SH, DEPT ANNEX ZOO_C6P_PD	BOT GE3P NB L3 CHEM GE3T, BS, ORG LAB PHYS GE3T, AIM, DEPT ANNEX ZOO GE3T-PC	BOT SEC3 BH L3 CHEM C6P, BKM, ORG LAB MATH C6, SP, DEPT PHYS C6P, SD, ELECTRIC LAB ZOO GE3P-PC	BOT SEC3 BH L3 CHEM C6P, BKM, ORG LAB MATH C7P, AR, COM. L PHYS C6P, SD, ELECTRIC LAB
		G	CHEM DSC3T, SB, IORG LAB	PHYS DSC1CT, SH, OPTIC LAB	BOT DSC2CT UKK L2	BOT SEC AC L3 CHEM DSC3P, SMA, CHEM LAB	MATH SEC1, SP, COM. L CHEM DSC3P, SMA, CHEM LAB	MATH DSC1C, SJ, DEPT	
	V	H		BOT C11P AC L3 CHEM C11T, BKM, COMP LAB MATH DSE1, AR, DEPT PHYS C11T, SD, ELECTRIC LAB	CHEM C12T, SMA, COMP LAB GEO C11P SM2 COM. L MATH DSE1, AR, DEPT PHYS DSE1T, AIM, ELECTRIC LAB ZOO DSE2T-PC	BOT DSE2T BH L1 CHEM DSE2T, SB, IORG LAB GEO DSE-1 SD GEO. L MATH C11, SJ, F5 PHYS DSE2T, AP, ELECTRIC LAB ZOO C12T-PAM	BOT C12T UKK L1 CHEM C12P, SB, IORG LAB GEO C11P SD GEO. L MATH DSE2, SRP, DEPT PHYS C12P, TK, ELECTRIC LAB ZOO C12T-PAM	BOT C12T UKK L1 CHEM C12P, SB, IORG LAB GEO C11T IB GEO. L MATH DSE2, SRP, DEPT PHYS C12P, TK, ELECTRIC LAB ZOO C12P-PAM	BOT DSE2T PG L2 GEO DSE-II IB GEO. L PHYS DSE2T, SH, GEN LAB ZOO C12P-PAM
		G		BOT DSE2AT UKK L2			BOT DSE2AT PG L2	BOT DSE 1AT AC L2	



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
WED	I	H		BOT MJ, SKD, L1 CHEM MJ, SMA GEO MJP IB GEO. L MATH MJ, SP, DEPT PHYS MJ, AP, GEN LAB ZOO MJ-RKK	BOT, MI, SKD, L1 CHEM MI, MS PHYS MI, AP, GEN LAB ZOO MI-RKK PHYSIO_HONS_MIN _TH_PD	HONS_MDC_TH	HONS-ENVS_TH	GEO SECP IB COM. L PHYS SEC1 PRAC, AP, COMP LAB ZOO SEC1P-RKK	PHYS SEC1 PRAC, AP, COMP LAB
		G	MATH MJ, SP, DEPT	BOT MJ, NB, L2 PHYSIO_PASS_MAJ- A_TH_PD	BOT MI, NB, L2 PHYS PASS MI, SH, ELECTRO LAB PHYSIO_PASS_MIN- C_TH_PD	PASS_MDC_TH	PASS-ENVS_TH		
	III	H		BOT C7P AC L3 CHEM C5T, MS, IORG LAB GEO SEC-1SD S7 MATH C7T, SRP,DEPT PHYS C5T, AIM, ELECTRIC LAB	BOT C7T AC L3 CHEM C6T, SMA, IORG LAB GEO C6T IB GEO.L MATH C6, SP, F.ANNEX PHYS C6T, SD, DEPT ANNEX	BOT C6T PG L2 CHEM C7T, SMA, IORG LAB GEO C6P IB GEO. L MATH C6, SP, TR PHYS C7T, SH, DEPT ANNEX ZOO C5T-RKK	BOT C7P NB L3 CHEM GE3T, SMA PHYS GE3T, SD, ELECTRIC LAB ZOO C5P-RKK PHYSIO_GE-3T_PD	BOT C7P NB L3 CHEM C7P, SMA, IORG LAB MATH C7T, SRP, DEPT PHYS C7P, SH, ELECTRO LAB	CHEM C7P, SMA, IORG LAB MATH C7T, SRP, DEPT PHYS C7P, SH, ELECTRO LAB ZOO GE3P-PC
		G			MATH DSC1C, SRP, COM.L	BOT SEC 1T NB L3 DSC 3T, BS, IORG LAB	BOT DSC2CT AC L1 PHYS DSC1CP, XXX	BOT DSC2CP AC L2 PHYS DSC1CP, XXX	BOT SEC BH L1 PHYS DSC1CT, SD, ELECTRIC LAB
	V	H	CHEM DSE2P, SB, ORG LAB GEO DSE-1 SM2 GEO. L	BOT C12P BH L2 CHEM DSE2P, SB, ORG LAB GEO C11P SM2 COM. L ZOO DSE2T-PC	BOT C12P BH L2 CHEM C11T, BS, COMP LAB GEO C11P SD COM. L PHYS C11T, AIM, ELECTRIC LAB ZOO DSE2T-PC	BOT C11T AC L1 CHEM DSE1T, MS, ORG LAB GEO DSE-1 SM2 S7 MATH DSE2, SRP, F.ANNEX PHYS DSE2T, AP, ELECTRIC LAB ZOO DSE2P-PC	BOT C12T SKD L1 CHEM DSE2T, SB, ORG LAB GEO C12T IB S7 MATH DSE2, SRP, DEPT PHYS C11P, AIM, COMP LAB ZOO DSE2P-PC	BOT DSE2P PG L1 CHEM C11P, MS, IORG LAB MATH C12, SP, DEPT PHYS C11P, AIM, COMP LAB ZOO DSE2P-PC	BOT DSE2P PG L2 CHEM C11P, MS, IORG LAB
		G		BOT DSE2AT PG L2		BOT SEC-3T BH L1	BOT DSE2AT PG L2		



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
THUR S	I	H	PHYS MJ, AIM, GEN LAB	BOT MJ, BH, L1 CHEM MJ TH/PRAC, SMA MATH MJ, SRP ZOO MJ-RKK	BOT, MJ, NB, L1 CHEM MJ PRAC, BKM GEO MJ SD S7 MATH MJ, SJ ZOO MJ-RKK	BOT, MI, BH, L1 CHEM MI TH/PRAC, BKM GEO MJ SD S7 PHYS MI, TK, GEN LAB PHYSIO_HONS_MIN PRAC_PD	BOT MI, AC L1 CHEM MI PRAC, XXX ZOO MI-RKK	BOT MJ SEC, NB, L1 CHEM SEC1, BKM MATH SEC1, SJ PHYS SEC1 PRAC, AIM, COMP LAB ZOO SEC1P-RKK	PHYS SEC1 PRAC, AIM, COMP LAB
		G		BOT MJ, NB, L2 MATH MJ, AR PHYSIO_PASS_MAJ- A_TH_PD	BOT MJ BH, L2	BOT MI AC L2 PHYS PASS MI, XXX, DEPT ANNEX	BOT, MI PG L2 MATH MI, SRP PHYSIO_PASS_MIN-C _PRAC_PD	BOT MJ SEC AC, L2 PHYSIO_PASS_SEC-1 _TH_SKK	MATH MJ, SJ, DEPT
	III	H	GEO C6T IB GEO. L ZOO C5T-PAM	BOT C5P PG L3 CHEM C5P, BS, IORG LAB GEO C7T MMM GEO. L MATH C5, SJ, DEPT PHYS C5P, AIM, COMP LAB ZOO C5P-PAM	BOT C5P PG L3 CHEM C5P, BS, IORG LAB GEO C6P MMM GEO. L MATH C7T, AR, F.ANNEX PHYS C5P, AIM, COMP LAB ZOO_C6T_PD	BOT C5T NB L2 CHEM C6T, SMA, IORG LAB GEO C6P MMM GEO. L MATH C7T, AR, F.ANNEX PHYS SEC1T, SH, ELECTRO LAB ZOO SEC2T-RKK	BOT C6P UKK L3 CHEM C7T, SMA, IORG LAB PHYS C7T, TK, DEPT ANNEX	BOT C6P UKK L3 BOT GE3P BH L 2 CHEM GE3P, SMA, IORG LAB PHYS GE3P, AP, ELECTRIC LAB ZOO GE3T-PAM PHYSO_GE-3P_PD	BOT GE3P BH L 2 CHEM GE3P, SMA, IORG LAB PHYS GE3P, AP, ELECTRIC LAB ZOO GE3P-PAM PHYSO_GE-3P_PD
		G	DSC3P, XXX, CHEM LAB	DSC3P, XXX, CHEM LAB		DSC3T, XXX MATH DSC1C, SJ, COM.L		MATH SEC1, SRP, COM.L	
	V	H	PHYS C12P, AP, ELECTRIC LAB	BOT DSE2P UKK L2 CHEM C11T, BKM, ORG LAB PHYS C12P, AP, ELECTRIC LAB	BOT DSE2P UKK L2 CHEM C12T, SMA, PHYS LAB GEO C11T IB S7 MATH DSE2, SRP, DEPT PHYS C12T, AP, ELECTRIC LAB ZOO C11T-PAM	BOT C11T PG L1 CHEM DSE1T, BS, ORG LAB GEO DSE-1 SD S7 MATH DSE2, SRP, DEPT PHYS DSE1T, AIM, ELECTRIC LAB ZOO C11P-PAM	BOT DSE1T NB L1 CHEM DSE2T, BKM, ORG LAB GEO C11T SD GEO. L MATH C11, SJ, DEPT PHYS DSE2T, SH, ELECTRIC LAB ZOO C12T-PAM	BOT C11T PG L2 CHEM C12P, BS, ORG LAB GEO DSE-2 MMM GEO. L MATH DSE1, AR, DEPT PHYS C12T, TK, ELECTRIC LAB	BOT C11T AC L1 CHEM C12P, BS, ORG LAB
		G							



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
FRI	I	H		HONS_ENVS_PAC	HONS_ENVS_PAC	HONS_MDC_TH	AECC_ENGLISH	BOT MJ SEC, PG, L1 CHEM SEC1 PRAC, SMA GEO MJ SM1 GEO. L MATH SEC1, AR PHYS SEC1 PRAC, AIM, COMP LAB ZOO SEC1P-RKK	CHEM SEC1 PRAC, SMA PHYS SEC1 PRAC, AIM, COMP LAB
		G		PASS_ENVS_PAC	PASS_ENVS_PAC	PASS_MDC_TH	AECC_ENGLISH	BOT, SEC, SKD, L1 ZOO SEC1P-PC PHYSIO_PASS_SEC-1 TH_PD	
III	H	H	CHEM C7P, SMA, IORG LAB PHYS C6P, AP, ELECTRIC LAB	BOT GE3P NB L1 CHEM C7P, SMA, IORG LAB GEO C7T SD GEO. L MATH C6, SP, F.ANNEX PHYS C6P, AP, ELECTRIC LAB ZOO C7T-PAM	BOT C6P PG L1 CHEM SEC1T, SB, ORG LAB GEO C5T SM1 GEO. L MATH SEC1, SP, F.ANNEX PHYS C5T, AIM, GEN LAB ZOO C7P-PAM ZOO_C6T_PD	BOT SEC UKK L1 CHEM C5T, SB, IORG LAB GEO 5T SM1 GEO. L MATH C5, SJ, F.ANNEX PHYS SEC1T, SD, GEN LAB ZOO_C6T_SKK	BOT C7T NB L1 BOT GE3T BH L3 CHEM GE3T, SMA, IORG LAB PHYS GE3, SD, GEN LAB PYSIO_GE-3T_PD	BOT GE3T BH L3 CHEM SEC1P, SB, IORG LAB MATH C5, SJ, DEPT PHYS C6T, SD, DEPT ANNEX ZOO GE3T-PAM	BOT C6T PG L3 CHEM SEC1P, SB, IORG LAB PHYS C5T, TK, ELECTRIC LAB ZOO GE3P-PC
		G	PHYS DSC1CP, SD, ELECTRO LAB	BOT DSC2CT SKD L3 PHYS DSC1CP, SD, ELECTRO LAB	BOT DSC2CP SKD L3	BOT DSC2CP SKD L3	BOT SEC1T, SKD, L3 MATH SEC1, SJ, COM.L	MATH DSC1C, SP, COM.L	
V	H	H		BOT DSE1P BH L2 CHEM C12T, BS GEO C12T IB S7 MATH DSE1, AR, DEPT PHYS C11T, AIM, GEN LAB ZOO C11T-RKK	BOT DSE1P BH L2 CHEM C11T, BKM GEO DSE-2 IB S7 MATH C11, SJ,F.ANNEX PHYS DSE1T, TK, ELECTRIC LAB ZOO C11P-RKK	BOT DSE1P NB L2 CHEM DSE2T, BKM, ORG LAB GEO DSE-2 IB S7 MATH DSE1, AR, DEPT PHYS C11P, AIM, COMP LAB ZOO C12T-PAM	CHEM DSE2P, BKM, ORG LAB GEO C12P SD COM. L MATH C12, SP,S2 PHYS C11P, AIM, COMP LAB ZOO C12P-PAM	BOT DSE1T NB L2 CHEM DSE2P, BKM, ORG LAB GEO C12P SD COM. L PHYS C12T, AP, GEN LAB	BOT DSE1T NB L2
		G					BOT DSE2AP PG L2		


 Approved
 Faculty/Staff/Student
 Representative


DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5	
SAT	I	H		HONS_ENVS_TH	HONS_MDC_TH					
		G		PASS_ENVS_TH	PASS_MDC_TH					
	III	H	CHEM C6P, BKM, ORG LAB MATH C7P, AR, COM.L ZOO_C6P_SKK	BOT C6T PG L1 CHEM C6P, BKM, ORG LAB GEO SEC-1 SM1 GEO. L MATH C7T, AR, COM.L PHYS C7P, SD, ELECTRO LAB ZOO_C6P_SKK	BOT C5P NB L1 CHEM SEC1T, SB GEO C7T MMM GEO. MATH SEC1, SJ, TR PHYS C7P, SD, ELECTRO LAB ZOO_C6T_PD	BOT C5P NB L1 CHEM GE3T, SMA, ORG LAB GEO C7T SD GEO. L PHYS GE3T, AIM, GEN LAB PHYSIO_GE-3T_PD				
		G		PHYS DSC1CT, XXX		MATH DSC1C, SJ, COM.L				
	V	H	GEO C12T SM1 GEO. L	BOT DSE1P NB L2 CHEM DSE1T, SB, IORG LAB GEO C11T SD S7 MATH C11, SJ, F.ANNEX PHYS DSE1T, AIM, ELECTRIC LAB ZOO DSE2T-RKK	BOT C11P PG L2 CHEM DSE1P, BKM, IORG LAB GEO DSE-1 SD S7 MATH C12, SP, DEPT PHYS C11T, AIM, ELECTRIC LAB ZOO DSE2P-RKK	BOT C11P PG L2 CHEM DSE1P, BKM, IORG LAB MATH C12, SP, S4 PHYS DSE1T, TK, ELECTRO LAB ZOO DSE1T-BM	ZOO DSE1T-BM			
		G		BOT DSE2AT UKK L3 ZOO DSE1AT-PAM	BOT DSE2AP UKK L3 ZOO DSE1AP-PAM	BOT DSE2AP UKK L3 ZOO SEC1T-PAM				

15/07/20
 15/07/20
 15/07/20



মিটিং রেজল্যুশন বহি

MEETING RESOLUTION BOOK

মিটিং নং / Meeting No.	
তারিখ / Date	

উপস্থিত সভ্যগণের নাম
NAME OF MEMBERS PRESENT

স্থান / Place	
সময় / Time	

১। ১.	৮। ৪.	১৫। ১৫.
২। ২. Akul Rana	৯। ৯.	১৬। ১৬.
৩। ৩. Tapanendu Kamilya	১০। ১০.	১৭। ১৭.
৪। ৪. Nilanjana Bhattacharyya	১১। ১১.	১৮। ১৮.
৫। ৫. Uttam Kumar Kanp	১২। ১২.	১৯। ১৯.
৬। ৬.	১৩। ১৩.	২০। ২০.
৭। ৭.	১৪। ১৪.	২১। ২১.



NARAJOLE RAJ COLLEGE
(NAAC Accredited B grade)
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211



Notice


Dated: 04.01.2024

Notice is hereby given that an urgent meeting of the academic committee will be held on 05.01.2024 (Friday) at 12.00 noon in the Principal's Chamber to discuss the following agenda. Please, make it convenient to join the meeting.


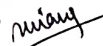
Agenda:

1. Read and Confirm resolution of the previous meeting.
2. Regarding restructure of Academic Committee
3. Miscellaneous, if any, with the permission of the chair.

Signature of the Principal
Dr. Basudev Mandal


Signature of the Convenor
Dr. Akul Rana

Copy forwarded for information and necessary action to:

1. Dr. Nilanjana Bhattacharyya-Member
2. Dr. Tapanendu Kamilya-Member 
3. Dr. Uttam Kumar Kanp-Member 
4. Prof. Pragna Paramita Mondal-Member
5. Dr. Dipak Shom -Member
6. Prof. Asis Bhattacharyya-Member
7. Prof. Barun Rout-Member
8. Sri Suvadip Samanta-Member



Proceedings of the meeting of the Academic Committee held on 05-01-2024
(Friday) at 2.00 pm

Venue: Principal's Chamber

The meeting was chaired by Dr. Basudev Mandal, the Principal of the College and Chairman of the Academic Committee. Detailed discussions took place on the agenda ongoing academic activities of the college and the following resolutions were adopted:

1. The resolutions of the previous meeting were read and confirmed.
2. The Convener informed the house there are some miscommunication and he faces some problem to function academic committee due to the absence of representative from all academic departments of the college. He proposed to include representative from all academic department. After detailed discussion it is resolved that representative from all academic departments of the college may be present as invitee member in some important academic committee meeting.

Misc. (i) Prof. A. Bhattacharyya and Dr. D. Shom proposed to conduct a meeting before every internal examination of the college and the proposal accepted in the meeting.

As there was no further agenda for discussion, the meeting ended with a reciprocal vote of thanks to and from the Chair.

Akul Rana
CONVENOR
(DR. AKUL RANA)

Dr. Basudev Mandal
CHAIRMAN
(DR. BASUDEV MANDAL)



NARAJOLE RAJ COLLEGE
MASTER ROUTINE FOR 2nd Semester, 4th Semester & 6th Semester
Session -2023-2024



Monday		10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00	
Monday	2nd Sem. (H)	Bng-Major-2-G6- S.P Eng- Major-2- G5- MM Sans- Major-2- G4- KS Hist- Major-2- G1- Pols - Major-2- S1-RD Phil- Major-2- S2- AG	Bng-Minor-2 -G6- A.C Eng- Minor-2 - G5-MB Sans- Minor-2 - G4- US Hist- Minor-2 - G1- UC Pols - Minor-2 - S1-PS Phil- Minor-2 - S2- BM	Bng-Sec-2-G6- SCP Eng- Sec-2- G5-MM Sans- Sec-2- G4- AB Hist- Sec-2- G1- MN Pols - Sec-2- S1-RD Phil- Sec-2- S2- ST					
	2nd Sem. (G)			Edu.-Minor -2- A6- MA Phy.Edu- (A.N) Minor-2 -S6-	Bng-Major-2-G6- G.J Eng- Major-2- G5-XX Sans- Major-2- G4- BB Hist- Major-2- G1- MN Pols - Major-2- S1-XX Phil- Major-2- S2- ST Edu.- Major -2- A8-IA Phy.Edu-(A.N) Major -2-S6-	Bng-Minor-2 -G6- S.P Eng- Minor-2 - G5-XX Sans- Minor-2 - G4-US Hist- Minor-2 - G1- NS Pols - Minor-2 - S1-XX Phil- Minor-2 - S2- BM	Bng-Sec-2-G6- G.J Eng- Sec-2- G5-MM Sans- Sec-2- G4-BB Hist- Sec-2- G1- BG Pols - Sec-2- S1-XX Phil- Sec-2- S2- AG Edu.- Sec-2- G3-IA Phy.Edu- (A.N) Sec-2-S6- Hist- Major-2- A3- CS		
	4th Sem. (H)	Bng-GE4-G3- GJ Eng- GE4- G2- MB Sans- GE4-G7- TR Hist- GE4-S5- Pols – GE4-A1-XX Phil- GE4-A2- BM	Bng-C8-G3- N.B Eng- C8- G2-MM Sans- C8-G7-KS Hist- C8-S5-NS Pols - C8-A1-RD Phil- C8-A2- ST	Bng-C9-G3- G.J Eng- C9-G2-MB Sans- C9-G7-AC Hist -C9-S5-CS Pols - C9-A1-PS Phil- C9-A2- BM	Bng-C10-G3- A.C Eng- C10-G2- SDR Sans C10-G7-AB Hist - C10-S5-BG Pols - C10-A1-PS Phil- C10-A2-XX				
	4th Sem. (G)	Phil- DSC1D/2D-A7-XX	Phy.Edu- (A.N) DSC1D/2D –SH – Sans- DSC1D/2D-S6- EX	Bng-DSC1D/2D-SH- BX	AECC -Beng-2- SH- BX	Hist - DSC1D/2D-G3 UC Pols - DSC1D/2D-S5-RD Hist-GE4- G2-CS	Eng- DSC1D/2D-G2-XX Edu.-DSC1D/2D –G7- MA Hist-Sec (G) S4- NS	Bng-SEC2-G3- S.P Eng- SEC2-G2-MB Sans SEC2-G7-TR Hist - SEC2-S5- NS Pols - SEC2-A1-PS Phil- SEC2-A2- AG Edu-SEC2-A8-IA Phy.Edu.- SEC2- A7- (A.N)	
	6th Sem.(H)	Bng-C13-A4- A.C Eng- C13- A5-SDR Sans- C13-A6-US Hist- C13-A3- Pols - C13-S3-XX	Bng- C14-A4- BX Eng- C14- A5-SDR Sans- C14-A6-BB Hist- C14-A3- MN Pols - C14-S3-XX		Bng-DSE3-A4- S.P Eng- DSE3- A5-MB Sans- DSE3-A6-KS Hist- DSE3-A3-UC Pols - DSE3-S3-RD	Bng- DSE4-A4- N.B Eng- - DSE4- A5-SDR Sans- - DSE4-A6-TR Hist- - DSE4-A3-MN Pols - - DSE4-S3-PS	Hist- DSE3- S5-MN	Hist- C13-G1- BG	





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		Phil- C13-S4-ST	Phil- C14-S4-XX		Phil- DSE3-S4-AG	Phil- - DSE4-S4-AG		
	6th Sem. (G)	Edu.-DSE1B/2B –A8-MA Eng- DSE1B/2B –S6- XX	Bng- DSE1B/2B -A8- G.J	Sans- DSE1B/2B –A3- Phy.Edu- (A.N) DSE1B/2B –A4- EX	Hist- DSE1B/2B -SH- CS	Pols - DSE1B/2B –S6-XX	Phil- DSE1B/2B -S4-ST	Bng- GE2 -A4- BX Eng- GE2 -- A5-XX Sans- GE2 -A6-AB Hist- GE2 --A3- Pols - GE2 - -S3-XX Phil- GE2 -S4-XX Edu.- GE2-G6-MA Phy.Edu- GE2-S6- (A.N)
Tuesday		10.00-11.00	11.00-12.00	12.00-01.00	01.00-020.00	02.00-03.00	03.00-04.00	04.00-05.00
Tuesday	2nd Sem. (H)	Bng-Minor-2 -G6- BX	Bng-Major-2-G6- G.J Eng- Major-2- G5-SDR Sans- Major-2- G4-AB Hist- Major-2- G1- MN Pols - Major-2- S1-SS Phil- Major-2- S2- AG	Bng-Minor-2 -G6- BX Eng- Minor-2 - G5-XX Sans- Minor-2 - G4-KS Hist- Minor-2 - G1- BPJ Pols - Minor-2 1- S1-BR Phil- Minor-2 - S2- TA	Bng-Sec-2-G6- BX Eng- Sec-2- G5-PPM Sans- Sec-2- G4-US Hist- Sec-2- G1- BS Pols - Sec-2- S1-RD Phil- Sec-2-S2- ST			
	2nd Sem. (G)					Bng-Major-2-G6- BX Eng- Major-2- G5-MM Sans- Major-2- G4-AC Hist- Major-2- G1- NS Pols - Major-2- S1-XX Phil- Major-2- S2- XX Edu.- Major -2- A6-RAB Phy.Edu- (P.M) Major -2-S6-	Bng-Minor-2 -G6- BX Eng- Minor-2 - G5-MB Sans- Minor-2 - G4-TJ Hist- Minor-2 - G1- UC Pols - Minor-2 - S1-XX Phil- Minor-2 - S2- ST Edu.-Minor -2- SH-IA Phy.Edu- (A.N) Minor-2 -S6- Hist- Major-2- S7- BPJ	Bng-Sec-2-G6-BX Eng- Sec-2- G5-XX Sans- Sec-2- G4-TR Hist- Sec-2- G1-UC Pols - Sec-2- S1-XX Phil- Sec-2-S2- AG Edu.- Sec-2- A4-IA Phy.Edu- (A.N) Sec-2-S6-
	4th Sem. (H)	Bng-C8-G3- BX Eng- C8- G2-MM Sans- C8-G7-KS Hist- C8-S5- Pols - C8-A1-XX Phil- C8-A2- AG	Bng-C9-G3- A.C Eng- C9-G2-MB Sans- C9-G7-US Hist –C8-S5- BPJ Pols - C9-A1-BR Phil- C9-A2- BM	Bng-C10-G3- N.B Eng- C10-G2-SDR Sans C10-G7-TJ Hist – C9-S5- BS Pols - C10-A1-SS Phil- C10-A2- ST	Hist – C10-S5- BPJ	Bng-GE4-G2- GJ Eng- GE4- G7-MB Sans- GE4-S5-TR Hist- GE4-A1- BG Pols – GE4-A2-SS Phil- GE4-A8- BM EDU-GE4-A-6-M.A	Hist- Sec (H)- A3-MN	Bng-Sec-2-G3-D.S Eng- Sec-2- G2-MM Sans- Sec-2- G7-BB Hist- Sec-2- S5- BS Pols - Sec-2- A1-SS Phil- Sec-2-A2- ST

17/11/24
 Narajole Raj College
 Paschim Medinipur
 West Bengal
 India - 751001



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	4th Sem. (G)	Phy.Edu- (A.N) DSC1D/2D -S6- Sans- DSC1D/2D-A8- US	AECC -Beng-2-SH- BX	AECC -Beng-2-R-Ex - BX Hist- DSC1D/2D-SH- CS	Pols - DSC1D/2D-A1-SS Phil- DSC1D/2D-A1A2- BM	Bng-DSC1D/2D-G3- BX	Bng-SEC2-G3- SCP Eng- SEC2-G2-PPM Sans SEC2-G7- AB Hist - SEC2-S5- CS Pols - SEC2-A1-XX Phil- SEC2-A2-XX Phy.Edu- SEC2-A7- (A.N) Edu- SEC2-A8-RAB	Eng- DSC1D/2D-A7-XX Edu- DSC1D/2D-A8-MA
	6th Sem.(H)	Bng-C13-A4- BX Eng- C13- A5-SDR Sans- C13-A6-AC Hist- C13-A3- Pols - C13-S3-XX Phil- C13-S4- BM	Bng- C14-A4- M.A Eng- C14- A5-PPM Sans- C14-A6-TJ Hist- DSE3-A3- UC Pols - C14-S3-XX Phil- C14-S4- TA	Bng-DSE3-A4-G.J Eng- DSE3- A5-PPM Sans- DSE3-A6-AB Hist- C14-A3- NS Pols - DSE3-S3-RD Phil- DSE3-S4-XX	Bng- DSE4-A4- BX Eng- - DSE4- A5-SDR Sans- - DSE4-A6-TR Hist- - DSE4-A3- CS Pols - - DSE4-S3-SS Phil- - DSE4-S4- TA			
	6th Sem. (G))	Hist- DSE1B/2B -SH-	Bng- DSE1B/2B -A8- BX	Edu.-GE 1 -S6-RAB Eng- DSE1B/2B - A8-	Sans- DSE1B/2B -S6- TJ Phy.Edu- (P.M) DSE1B/2B -SH	Phil- DSE1B/2B -S4- ST - Hist-Sec4- A3-MN	Bng- GE2 -A4- BX Eng- GE2- A5- Sans- GE2-A6-BB Hist- GE2-A3- BG Pols - GE2A -S3-BR Phil- GE2-S4- BM Edu.- GE2 -A3-MA Phy.Edu- (P.M) GE2-Prac.-	Pols - DSE1B/2B - -S3-BR
Wednes day		10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00
Wednes day	2nd Sem. (H)	Bng-Major-2-G6- BX Eng- Major-2- G5-PPM Sans- Major-2- G4-TJ Hist- Major-2- G1- Pols - Major-2- S1-XX Phil- Major-2- S2- ST	Bng-Minor-2 -G6-M.A Eng- Minor-2 - G5-PPM Sans- Minor-2 - G4-KS Hist- Minor-2 - G1- NS Pols - Minor-2 1- S1-XX Phil- Minor-2 - S2- TA	Bng-Sec-2-G6-D.S Eng- Sec-2- G5-MM Sans- Sec-2- G4-AB Hist- Sec-2- G1- CS Pols - Sec-2- S1-SS Phil- Sec-2-S2- ST				
	2nd Sem. (G)	Edu.- Major -1- SH-RAB Phy.Edu- (A.N) Major -1-S6-			Bng-Major-2-G6- BX Eng- Major-2- G5-XX Sans- Major-2- G4-RM	Bng-Minor-2 -G6-G.J Eng- Minor-2 - G5-MM Sans- Minor-2 - G4-AB	Bng-Sec-2-G6-BX Eng- Sec-2- G5- Sans- Sec-2- G4-TJ	



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					Hist- Major-2- G1- BG Pols - Major-2- S1-XX Phil- Major-2- S2-XX	Hist- Minor-2 - G1- UC Pols - Minor-2 - S1-XX Phil- Minor-2 - S2- BM Edu.-Minor -2- S6-IA Phy.Edu- (A.N) Minor-2 -A8-	Hist- Sec-2- G1- BG Pols - Sec-2- S1-XX Phil- Sec-2- S2- ST Edu.- Sec-2- G-2-RAB Phy.Edu- (A.N) Sec-2-S6-	
	4th Sem. (H)	Sans- C9-F1- AC GE4-S1-RD	Bng-C8-G3-G.J Eng- C8- G2-SK Sans- C8-G7-RM Hist- C10-S5- CS Pols - C8-A1-RD Phil- C8-A2- ST	Bng-C9-G3-SCP Eng- C9-G2-SDR Sans- C9-G7-BB Hist -C9-S5- NS Pols - C9-A1-XX Phil- C9-A2-XX	Bng-C10-G3- G.J Eng- C10-G2-SK Sans C10-G7-TJ Hist – C8-S5- NS Pols - C10-A1-SS Phil- C10-A2- BM	Hist-GE4-S5-BG	Hist-C10-S5-CS	Bng-GE4-G6- M.A Eng- GE4-G5-XX Sans GE4-G4-US Hist - GE4-G1- CS Phil- GE4-S2- TA
	4th Sem. (G)	Pols - DSC1D/2D-A8-XX	Phy.Edu- (P.M) DSC1D/2D -S6- Sans- DSC1D/2D-A8- US	Phil- DSC1D/2D-A7- BM	AECC -Beng-2 -SH- D.S	Eng- DSC1D/2D-G2-SK - Edu.-DSC1D/2D –G7-RAB	Bng-DSC1D/2D-G3-GJ	Hist- DSC1D/2D-S5-
	6th Sem.(H)		Bng-C13-A4-D.S Eng- C13- A5-SDR Sans- C13-A6-AC Hist- C14-A3- UC Pols - C13-S3-SS Phil- C13-S4- BM	Bng- C14-A4-BX Eng- C14- A5-PPM Sans- C14-A6-TJ Hist- C13-A3- BG Pols - C14-S3-RD Phil- C14-S4- TA	Bng-DSE3-A4- BX Eng- DSE3- A5-PPM Sans- DSE3-A6-AB Hist- DSE4-A3- CS Pols - DSE3-S3-XX Phil- DSE3-S4- ST	Bng- DSE4-A4-BX Eng- - DSE4- A5-SDR Sans- - DSE4-A6-RM Hist- - DSE3-A3- NS Pols - - DSE4-S3-SS Phil- - DSE4-S4-XX		
	6th Sem. (G)	Bng- GE2 -A4-BX Eng- GE2 -- A5-MM Sans- GE2 -A6- AB Hist- GE2 --A3- Pols - GE2 - -S3-SS Phil- GE2 -S4-XX Edu.- GE2-A7-IA Phy.Edu-GE2-G2 – (P.M)	Sans- DSE1B/2B –A7- BB Phy.Edu-DSE1B/2B –SH (A.N)	Hist- DSE1B/2B –S6- UC	Edu.-DSE1B/2B -LLR-RAB Eng- DSE1B/2B – A8-XX	Phil- DSE1B/2B –S6- ST	Bng- DSE1B/2B -A4- D.R Pols - DSE1B/2B -S3- SS	Bng- SEC4 -A4- D.R Eng- SEC4 - A5-XX Sans- SEC4 -A6-AC Hist- SEC4 -A3- Pols - SEC4 -S3-SS Phil- SEC4 -S4- BM Edu.- SEC4 – G7-IA Phy.Edu- SEC4 -S6- (A.N)
Thursda y		10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00
Thursda y	2nd Sem. (H)	Bng-Minor-2 –F3- M.A	Bng-Major-2-G6- N.B Eng- Major-2- G5-SK Sans- Major-2- G4-RM	Bng-Minor-2 -G6-D.R Eng- Minor-2 - G5-PPM Sans- Minor-2 - G4-TJ	 <small>Controller of Examinations Narajole Raj College 15/07/23</small>			





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			Hist- Major-2- G1- BPJ Pols - Major-2- S1-SS Phil- Major-2- S2-XX	Hist- Minor-2 - G1- BS Pols - Minor-2 1- S1-BR Phil- Minor-2 - S2-TA				
2nd Sem. (G)					Bng-Major-2-G6-D.R Eng- Major-2- G5-PPM Sans- Major-2- G4-AC Hist- Major-2- G1- MN Pols - Major-2- S1-XX Phil- Major-2- S2- ST Edu.- Major -2- S6-RAB Phy.Edu- (P.M) Major -2- A7-	Bng-Minor-2 -G6-BX Eng- Minor-2 - G5-SK Sans- Minor-2 - G4-TJ Hist- Minor-2 - G1- BS Pols - Minor-2 - S1-XX Phil- Minor-2 - S2- ST Edu.-Minor -2- G7-IA Phy.Edu-Minor-2 -S6-(P.M)		
4th Sem. (H)	Bng-GE4-G3- BX Eng- GE4- G2-PPM Sans- GE4-G7-AC Hist- GE4-S5- Pols – GE4-A1-XX Phil- GE4-A2-TA	Bng-C8-G3- M.A Eng- C8- G2-PPM Sans- C8-G7-KS Hist- C8-S5- MN Pols - C8-A1-SS Phil- C8-A2- ST	Bng-C9-G3- D.S Eng- C9-G2-MM Sans- C10-G7-TR Hist –C10-S5- BG Pols - C9-A1-PS Phil- C9-A2- AG	Bng-C10-A4-A.C Eng- C10-G2-SK Sans C9-G7- US Hist – C9-S5- UC Pols - C10-A1-SS Phil- C10-A2-XX	Hist-GE4-A3-BPJ	Hist-SEC(H)-G4-UC		
4th Sem. (G)	Phil- DSC1D/2D-A8- ST	Pols - DSC1D/2D-A8-XX	<i>Edu.-DSC1D/2D –A3-RAB</i> <i>Eng- DSC1D/2D-S6-SK</i>	AECC -Beng-2 –G3- N.B	Hist - DSC1D/2D-S5- BG	Bng-DSC1D/2D-G3- A.C	Phy.Edu- (P.M) DSC1D/2D -S6- Sans- DSC1D/2D-G7-KS	
6th Sem.(H)	Bng-C13-A4-D.R Eng- C13- A5-SK Sans- C14-A6- BB Hist- C13-A3- Pols - C13-S3-SS Phil- C13-S4-XX	Bng- C14-A4- A.C Eng- C14- A5- Sans- C13-A6- US Hist- C13-A3- BS Pols - C14-S3-BR Phil- C14-S4- TA	Hist-C14-S3-MN	Bng- DSE4-SH-D.S Eng- - DSE4- A5-MM Sans- - DSE4-A6-RM Hist- - DSE3-A3- BS Pols - - DSE4-S3-PS Phil- - DSE4-S4- AG	Hist-DSE4-S3-MN Hist-GE2-S7-BG	Bng-DSE3-A4-D.R Eng- DSE3- A5-PPM Sans- DSE3-A6-KS Hist- C13-A3- BS Pols - DSE3-S3-SS Phil- DSE3-S4- AG	Hist-C14-G1-MN	
6th Sem. (G)	Hist- DSE1B/2B –G6	Phil- DSE1B/2B –S6- AG	Bng- DSE1B/2B -A4- BX	Pols - DSE1B/2B –A8-BR	Eng- DSE1B/2B - A5-MM Edu.-DSE1B/2B –A6-RAB	Sans- DSE1B/2B -A6- TJ Phy.Edu- (P.M) DSE1B/2B –S4 -	Bng- GE2 -A4-M.A Eng- GE2 -- A5-MM Sans- GE2 -A6- AB Hist- GE2 --A3- BG Pols - GE2 - -S3-SS	





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								Phil- GE2 -S4-TA Edu.- GE2-LLR-IA Phy.Edu- GE2-G3- (P.M)
Friday		10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00
Friday	2nd Sem. (H)		MDC02 -SH	VAC02 -SH	AEC02 -SH-DR	MDC02 -SH	VAC02 -G1	AEC02 -G3
	2nd Sem. (G)		MDC02 -G6	VAC02 -S6	AEC02 -G7-DR	MDC02 -G6	VAC02 -S2	AEC02 -G7
	4th Sem. (H)	Bng-C8-G3- M.A Eng- C8- G2-SK Sans- C8-G7-RM Hist- C8-S5- Pols - C8-A1-XX Phil- C8-A2- ST	Bng-C9-G3-D.R Eng- C9-G2-MB Sans- C9-G7-AC Hist -C8-S5- MN Pols - C9-A1-XX Phil- C9-A2- BM	Bng-C10-G3-S.P Eng- C10-G2-SK Sans C10-G7-TJ Hist – C9-S5- CS Pols - C10-A1-SS Phil- C10-A2- TA	Bng-GE4-G2-BX Eng- GE4- S5-MM Sans- GE4-G6-RM Hist- GE4-A8- MN Pols – GE4-A1-RD Phil- GE4-A2- BM	Hist-C10-S3-BG		
	4th Sem. (G)	AECC -Beng-2-SH-BX	Edu.-DSC1D/2D –G5-RAB Eng- DSC1D/2D-S6-SK	Bng-DSC1D/2D-G4-D.R	Sans- DSC1D/2D-G7- TJ Phy.Edu-(A.N) DSC1D/2D –G3-	Hist - DSC1D/2D-S5- CS	Pols - DSC1D/2D-S1- BR	Phil- DSC1D/2D-S2- BM
	6th Sem.(H)	Bng-C13-A4- BX Eng- C13- A5-MM Sans- C13-A6-AC Hist- C13-A3- Pols - C13-S3-BR Phil- C13-S4- BM	Bng- C14-A4-D.S Eng- C14- A5-PPM Sans- C14-A6-BB Hist- DSE3-A3- CS Pols - C14-S3-PS Phil- C14-S4- TA	Bng-DSE3-A4-SCP Eng- DSE3- A5-MB Sans- DSE3-A6-AB Hist- C13-A3- BS Pols - DSE3-S3-RD Phil- DSE3-S4- ST	Bng- DSE4-A4-N.B Eng- - DSE4- A5-SDR Sans- - DSE4-A6- TR Hist- - DSE4-A3- CS Pols - - DSE4-S3-SS Phil- - DSE4-S4- TA	Hist-C14-G1-MN Hist-GE2-G2-BS Bng- C13-A4-D.R	Hist-DSE4-G1-BPJ	
	6th Sem. (G)	Bng- DSE1B/2B –A8-BX	Phil- DSE1B/2B –S2- ST Pols - DSE1B/2B –A8-SS	Hist- DSE1B/2B --G1- MN	Eng- DSE1B/2B – G5-MB Edu.-DSE1B/2B –S5-MA	Sans- DSE1B/2B -A6- TR Phy.Edu- (A.N) DSE1B/2B –S4 -	Bng- SEC4 -A4-M.A Eng- SEC4 - A5-XX Sans- SEC4 -A6- BB Hist- SEC4 -A3- CS Pols - SEC4 -S3-RD Phil- SEC4 -S4- ST Edu.- SEC4 -G6-MA Phy.Edu- SEC4 -G5- (P.M)	Bng- GE2 -A4-DR Eng- GE2 -- A5-XX Sans- GE2 -A6- BB Hist- GE2 --A3- BPJ Pols - GE2 - -S3-PS Phil- GE2 -S4- TA Edu.- GE2-G4-RAB Phy.Edu- GE2-G5- (A.N)





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Saturday		10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00
Saturday	2nd Sem. (H)		MDC02 -SH	VAC02 -SH	AEC02 -SH-BX	AEC02 -SH-S.P		
	2nd Sem. (G)		MDC02 -S6	VAC02 - S6	AEC02 - S6 -BX	AEC02 -SH-S.P		
	4th Sem. (H)	Bng-GE4-G4-BX Eng- GE4- G5-PPM Sans- GE4-S2- RM Hist- GE4-G7- Pols - GE4-S1-RD Phil- GE4-S5-XX EDU-GE4-A7-R.A.B	Bng-C8-G3-S.P Eng- C8- G2-SDR Sans- C8-G7-RM Hist- C8-S5- MN Pols - C8-A1-PS Phil- C8-A2-XX	Bng-C9-G3-D.R Eng- C9-G2-MB Hist -C9-S5- BS Pols - C9-A1-PS Phil- C9-A2- BM	Bng-C10-G3-SCP Eng- C10-G2-SK Sans C10-G7- TJ Hist - C10-S5- BPJ Pols - C10-A1-SS Phil- C10-A2- TA	Hist-GE4-G3-BPJ EDU-GE4-G7-M.A		
	4th Sem. (G)	Eng- DSC1D/2D-G2-MB Edu.-DSC1D/2D -G3-M.A	AECC -Beng-2-F3-N.B	Sans- DSC1D/2D-A7- TJ Phy.Edu-DSC1D/2D -A8- (A.N) Pols - DSC1D/2D-A1-S1-SS	Hist - DSC1D/2D-S5- CS Phil- DSC1D/2D-G4- BM	Hist-Sec (G)- G4-MN		
	6th Sem.(H)	Bng-C13-A4-DR Eng- C13- A5-SDR Sans- C13-A6- TJ Hist- C13-A3- Pols - C13-S3-SS Phil- C13-S4- BM	Bng- C14-A4-SCP Eng- C14- A5-SK Sans- C14-A6- TJ Hist- C13-A3- BPJ Pols - C14-S3-BR Phil- C14-S4- TA	Bng-DSE3-A4-N.B Eng- DSE3- A5-SK Sans- DSE3-A6- EX Hist- C14-A3- MN Pols - DSE3-S3-RD Phil- DSE3-S4- AG	Bng- DSE4-A4-SP Eng- - DSE4- A5-MB Sans- - DSE4-A6-RM Hist- - DSE4-A3- MN Pols - - DSE4-S3-PS Phil- - DSE4-S4- AG	Hist-DSE3-G1-NS		
	6th Sem. (G)	Bng- GE2 -SH-BX Eng- GE2 - A1-SK Sans- GE2 -A2- EX Hist- GE2 -G1- Pols - GE2 - - S6-XX Phil- GE2 -G3- TA Phy.Edu- GE2-A8- (A.N)	Edu.-DSE1B/2B -A8-RAB Eng- DSE1B/2B - G1-MB Hist- DSE1B/2B -S2- CS Phil- DSE1B/2B -G5-xx	Bng- DSE1B/2B -G4-S.P	Phy.Edu- DSE1B/2B -A8 - (A.N) Sans- DSE1B/2B -S2-EX Pols - DSE1B/2B -S1-BR	Hist-GE2-G2-CS		


 Narajole Raj College
 Paschim Medinipur
 Estd. - 1966

ROUTINE SCIENCE (JAN' 2024 – JULY' 2024)

DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
MON	II	H		Zoo Hons-Major-Th-PAM Major-Th-Chem/BKM Math Hons-Major-AR GEO Major-2p SM2 GEO Lab BOT MJ, UKK, L1 Physics-Hons-Major-Th-AP	Zoo Hons-Minor-Th-PAM Hons-Minor-Th/SB Math Hons-Minor-SJ GEO Major-2p SM2 GEO Lab BOT, MI, UKK, L1 Physics-Hons-Minor-Th-SH PHYSIO_MN-TH_SKK	Hons-VAC-02 Th	Zoo Hons-SEC2-Prac- BM Hons-SEC02-Prac/BS Math Hons-Sec2-Pr SP GEO Major-2p SM GEO Lab BOT MJ, SEC, SKD, L2	Zoo Hons-SEC2-Prac- BM Hons-SEC02-Prac/BS Math Hons-Sec2-Pr SP GEO Major-2p SM GEO Lab BOT MJ, SEC, BH, L1 Physics-Hons-SEC2-Prac-AP	BOT MJ, SEC, AC, L1 Physics-Hons-SEC2-Prac-AP
		G	Math-Pass-Major-Sj	Pass-MajorB-Th BOT MJ, AC, L2 PHYSIO_MJ-B-TH_SKK	Pass-MinorC-Th BOT MI, BH, L2 PHYSIO_MJ-C-TH_SKK	Pass-VAC02 -Th	Pass-SEC02-Th/Prac BOT MJ, SEC, UKK, L1 PHYSIO_SEC-TH/PRAC_SKK	Pass-SEC02- Prac Math Pass-Sec2 Pr-AR BOT MJ, SEC, SKD, L1	
	IV	H	Zoo C10T SKK C9P-Chem-Phy L /BS	C9P-Chem_Phy L /BS Math C8T-TR-SP GEO C10T MMM GEO LAB. BOT C9P SKD L3	C8P-Chem_iorg L/BS Math Sec2T-com Lab-AR GEO C8T SD PHY. LAB BOT C9P SKD L3 C8T (Phys) - TK	Zoo C8T PAM C8P-Chem_iorg L /BS Math C9T-Dep-SJ GEO SEC-2T SM GEO. LAB. BOT C8T BH L1 SEC2T (Phys) - SH	Zoo C8P PAM C8T-Chem_iorg L /BKM Math C9T-Dep-SJ GEO C9T SM2 GEO. LAB. C10T (Phys) - AP	GE4P-Chem_Phy L GEO SAL IB S7	GE4P-Chem_Phy L GEO SAL MMM S7 PHYSIO_GE-3P_SKK
		G		DSD3T-Chem			BOT DSC 2DT, AC L3 DSC1D/2D/3D-P (Phys) - SH	DSC1D/2D/3D P (Phys) - SH	

	VI	H	DSE4T-Chem_Com L /SB GEO C14T SM GEO. LAB BOT C14T BH L2 DSE3P (Phys) - TK	C14T-Chem_Iorg L /SB GEO C14T SD S7 BOT DSE4T BH L3 DSE3P (Phys) - TK	C13P-Chem_Gen L /BKM GEO DSC4T IB GEO. LAB. C13T (Phys) - AP	C13P-Chem_Gen L /BKM GEO DSE3T SM2 S7 BOT DSE 3T AC L3 DSE3T (Phys) - TK	DSE4P-Chem_Org L/SB GEO DSE 4T IB S7 BOT C14T BH L1	Zoo C13T PAM DSE4P- Chem_Org L/SB GEO C13T SD PHY. LAB BOT C13P UKK L2	Zoo C13P PAM C13T-Chem_Iorg L /BKM BOT C13P UKK L2
		G							

15/07/23
Approved
Parag Mehta
15/07/23



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
TUE	II	H		Zoo Hons-Major-Th-RKK Hons-Major Th/Prac-BKM Math Hons-Major SP GEO MAJOR 2P SM GEO LAB. BOT MJ, PG, L1	Zoo Hons-Major-Prac-RKK Hons-Major- Prac/BKM Math Hons-Major SP GEO MAJOR 2P SM GEO LAB. BOT MJ, SEC 2, PG L1 Physics-Hons-Major-Th-AP	AEC2 Bengali	Zoo Hons-Minor-Th-RKK Hons-Minor-Th/Prac/BS BOT MI, X, L1 Physics-Hons-Minor-Prac-SD Hons-Minor C-Th/Prac Physio-PD	Zoo Hons-Minor-Prac- RKK Hons-Minor-Th/Prac-BS BOT MI PG, L1 Physics-Hons-Minor-Prac-SD	SAL MMM PHY. LAB
		G	Math Pass-Major -SRP	Zoo Pass-MajorB_Th-PAM Pass-MajorB-Th/Prac Math Pass-Major -SJ BOT MJ, UKK, L2 Pass-MajorB-Th/Prac Physio-PD	Zoo Pass-MajorA_Prac-PAM Pass-MajorA-Prac BOT MJ SEC, NB, L2 Pass-MajorB-Th/Prac Math	AEC2 Bengali	Pass-Minor C-T/P Math Pass-Minor -SJ BOT MI, X, L1 Physics-Pass-MinorC_Th - SH Pass-Minor C-Th/Prac Physio-PD	Pass-Minor C-P BOT MI NB L2	
	IV	H	Zoo C10T PC GEO C8T IB GEO. LAB C9P (Phys) - AP	Zoo C10P PC C8T-Chem_Org L /BS V Math C10T-F. Annex-SRP GEO C9T SM2 GEO. LAB BOT C8T NB L3 C9P (Phys) - AP	Zoo C9P PD C8P-Chem_Org L /BS Math C9T-F. Annex-SJ GEO C10P IB GEO. LAB. BOT C10T AC L3 C8T (Phys) - AIM	Zoo C9P PD C8P-Chem_Org L /BS Math C8T-F. Dept-SP GEO C10P IB GEO. LAB. BOT C10T AC L2 C9T (Phys) - AP	Zoo GE4 T PC Zoo Lab GE4T-Chem_Org L/SMA BOT GE -4T NB L3 GE4T (Phys)-Dept. Annex.- TK	Zoo GE4 P PC Zoo Lab C10T-Chem_Org L/ SMA Math C8T-F. Dept-SP BOT C10T BH L3 C9P (Phys) - SH	C10T-Chem-Org L/ SMA Math Sec2-Comp Lab-AR BOT SEC 2T BH L3 C9P (Phys) - SH
		G	DSD3T- Chem_Iorg L/SMA	DSC1D/2D/3DT - (Phys) - SH		DSD3P-Chem L/BKM BOT SEC 2T NB L2	DSD3P-Chem L/BKM		DSC1D/2D/3DT - (Phys)-SD
	VI	H	BOT DSE 3P AC L3	DSE 3T-Chem-ComL/SMA GEO DSE-4T MMM S7	Zoo DSE2 T PC C14P-Chem_Phy L /SB GEO DSE-3T SM2 PHY.	Zoo C14T PAM C14P-Chem_Phy L /SB GEO DSE-3T SM S7	Zoo C14T PAM DSE4T-Chem_Org L/SB	Zoo C14P PAM C14T-Chem_Phys L/SB	Zoo C14P PAM C13T-Chem_Gen L/BKM



			BOT DSE 3P AC L3 C14T (Phys) - AIM	LAB. BOT C14T UKK L1 DSE4T (Phys) - SH	BOT C14T UKK L1 C13T (Phys) - TK	GEO C14P IB COM. LAB BOT DSE4T BH L1 C14P (Phys) - AIM	GEO C14P IB COM. LAB C14P (Phys) - AIM	GEO SAL SM GEO. LAB. BOT DSE3T PG L2
		G	Zoo Hons-Major-Th-RKK	Zoo Hons-Major-Prac-RKK		Zoo Hons-Minor-Th-RKK BOT DSE2BT PG L2	Zoo Hons-Minor-Prac-RKK	BOT SEC4T NB L2

15/11/24



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
WED	II	H	SAL SM2 PHY. LAB BOT MJ, SEC, PG, L1	Zoo Hons-Major-Th-PC Hons-Major-Th Math Hons-Major SP GEO MAJOR 2P SD GEO. LAB. BOT MJ, SKD, L1 Physics-Hons- Major-Th-AIM	Zoo Hons-Minor-Prac- PC Hons-Minor-Th/BS GEO MAJOR 2P SD GEO. LAB. BOT MI, SKD, L1 Physics-Hons- Minor-Th-AIM	Hons-MDC-Th	Hons-VAC02-Th	Hons-CS-P	Hons-CS-P
		G	Math Pass-Major -SP	Pass-Major B -Th BOT MJ, NB, L2 Pass-Major B-Th/Prac Physio-PD	Pass-Minor C-Th BOT MI, NB, L2 Physics-Pass- MinorC_Th - SD Pass-Minor C-Th/Prac Physio-PD	Pass-MDC-Th	Pass-VAC02-Th	Pass-CS-P	Pass-CS-P
	IV	H	C9P-Chem- Iorg L/MS GEO C8T SD GEO. LAB. SEC2P (Phys) - SD	C9P-Chem- Iorg L/MS GEO C9T SM2 GEO.LAB. BOT C10P AC L3 SEC2P (Phys) - SD	C8T-Chem- Iorg L/SB BOT C10PAC L3 C9T (Phys) - SH	C10T-Chem- Org L/SMA GEO C10P SD GEO LAB. BOT C9T SKD L2 C10T (Phys) - AP Zoo-C9T-PD	Zoo SEC2 T RKK GE4T-ChemL/MS BOT C10P NB L3 BOT GE 4P SKD L1 GE4T (Phys)- Electric. Lab - SD GE3T-Lab-PD	C9T-Chem- Iorg L/MS BOT C10P NB L3	Zoo GE4 P PC Zoo Lab C9T-Chem- Iorg L/MS REMEDIAL CLASS SLOW/ADVANCE
		G		DSC1D/2D/3DT - (Phys) - SH		DSD3T- Chem- Iorg L/BS	BOT DSC 2DP AC L1	DSC1D/2D/3D P - (Phys) - SD	DSC1D/2D/3DP- (Phys) - SD
	VI	H	BOT DSE4T SKD L1	Zoo DSE4T RKK BOT C14P BH L2 DSE3T (Phys) - AP	Zoo DSE4T RKK BOT C14P BH L2	Zoo DSE4P PC BOT DSE4P PG L1 C14T (Phys) - SD	Zoo DSE4P PC BOT DSE 4P PG L2 DSE4T (Phys) - AIM	Zoo DSE3P PC	C14T (Phys) - AIM
		G		Zoo Hons-Major-Th-PC DSE3P-Chem_Ph L/SMA	Zoo Hons-Minor-Prac- PC DSE3P-Chem_Ph L/SMA	DSE4T-Chem_Com L/SB GEO DSE-3T SM2 S7	C14P-Chem_Ph L/SB GEO SAL IB PHY. LAB.	C14P-Chem_Ph L/SB GEO C13T IB S7	DSE3T-Chem_Ph L/SMA



			BOT DSE2BP, PG L2	GEO DSE-4T IB S7 BOT DSE2BP, PG L1				
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Handwritten signature
15/11/2021
Director
European and Global
Business Development



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
THUR S	II	H	ADD ON COURSE	Zoo Hons-Major-Th-RKK Hons-Major-Th/Prac/BKM Math Hons-Major SRP GEO SEC-2 IB GEO. LAB BOT MJ, BH, L1	Zoo Hons-Major-Prac-RKK Hons-Major-Prac/BKM Math Hons-Major SJ GEO. SEC-2 SD GEO. LAB BOT, MJ, NB, L1	Hons-Minor-Th/Prac/MS GEO SAL SD S7 BOT MI, BH, L1 Physics-Hons-Minor-Th-AIM Hons-Minor -Th/Prac Physio-PD	Zoo Hons-Minor-Prac-RKK Hons-Minor-Prac/MS GEO SEC-2 IB PHY. LAB BOT MI, AC, L1	Zoo Hons-SEC2-Prac- BM Hons-SEC2-Th/BS Math Hons-Sec2 Pr SJ GEO SAL MMM PHY. LAB BOT MJ, SEC, NB, L1 Physics-Hons-SEC2-Prac-AIM	Physics-Hons-SEC2-Prac-AIM
		G		Pass-MajorB-Th/Prac Math Pass-Major –AR BOT MJ, NB, L2 Pass-Major B-Th/Prac Physio-PD	Pass-MajorA-Prac BOT MJ BH, L2	Pass-MinorC-Th/Prac BOT MI, AC, L2 Physics-Pass-MinorC_Prac-TK	Pass-MinorC-Prac Math Pass-Minor –SRP BOT MI PG L2 Physics-Pass-MinorC_Prac-TK Pass-Minor C- Prac Physio-PD	Pass-SEC2-Th BOT MJ SEC AC L2 Pass SEC-2 Th-Physio- PD	Math Pass-Major -SJ
	IV	H	Zoo C8T PAM C10P (Phys) - AP	Zoo C8P PAM C10P-Chem_Phy L/SMA GEO C9T SD PHY. LAB. BOT SEC PG L3 C10P (Phys) - AP Zoo C10T SKK	Zoo C9T PD C10P-Chem_Phy L/SMA BOT C9T SKD L3 C9T (Phys) - AP Zoo-C9T-PD	C8T-Chem_Inorg L/BS GEO C8T IB PHY. LAB. BOT C8T NB L2 C9T (Phys) - SH	C9T-Chem_Iorg L/BKM BOT C8P UKK L3 C10T (Phys) - AP	Zoo GE4 T PAM Zoo Lab GE4P-Chem_Iorg L/BKM BOT C8P UKK L3 BOT GE4P BH L2 GE4P (Phys)-Electric. Lab - AP	Zoo GE4 P PAM Zoo Lab GE4P-Chem_Iorg L/BKM GEO C10T IB GEO LAB. BOT GE4P BH L2 GE4P (Phys)-Electric. Lab - AP
		G	DSD3P-Chem_L/MS	DSD3P-Chem_L/MS		DSD3T-Chem/BKM BOT DSC-2DT SKD L3			
	VI	H	DSE4T (Phys) - SH	GEO DSE-4T MMM S7 BOT C14P UKK L2 C14P (Phys) - AIM	Zoo C13T PAM C13T-Chem_Iorg L/MS GEO C13T IB PHY.	Zoo C13P PAM DSE4P-Chem_Org L/SMA	Zoo C14T PAM DSE4P-Chem_Org L/SMA	DSE4T-Chem_Comp L/SMA GEO C14T SD GEO. LAB	C13T-Chem_Org L/MS GEO SAL MMM PHY. LAB BOT DSE3T AC L1



					LAB BOT C14P UKK L2 C14P (Phys) - AIM	GEO C14P MMM COM. LAB BOT DSE 3T PG L1 DSE3T (Phys) - AP	GEO C14P MMM COM. LAB BOT C13T NB L1 C14T (Phys) - AIM	BOT DSE4T PG L2 C13T (Phys) - TK	
		G							


 National
 Institute of Education
 Singapore, Singapore 117570



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
FRI	II	H	ADD ON COURSE	AEC2-Bengali	Zoo Hons-SEC2-Prac-BM Hons-SEC2-Th/BS Math Hons-Sec2 Pr AR Physics-Hons-Major-Th-AIM	Hons-MDC-Th	Hons-CS-Prac Physics-Hons-CS-Pr-SD	Hons-CS-Prac Physics-Hons-CS-Pr-SD	BOT REMEDIAL CLASS SLOW/ADVANCE L.
		G		AEC2-Bengali	Pass-SEC2-Th BOT SEC SKD L2	Pass-MDC-Th	Pass-CS-Prac	Pass-CS-Prac Physio-SKK	
	IV	H	SEC2T-Chem_Comp L/BS C8P (Phys) - AIM	Zoo C8T PAM C9T-Chem_Iorg L/BKM GEO C8T IB PHY. LAB BOT C8T UKK L1 C8P (Phys) - AIM	Zoo C8P PAM C9T-Chem_Iorg L/BKM GEO. C9T SD PHY. LAB BOT C9T PG L1 Zoo-C9T-PD	Zoo C9T SKK C10T-Chem_Org L/SMA GEO C10T IB S7 BOT GE4P NB L1 C8T (Phys) - TK Zoo-C10T-SKK	GE4T-Chem_Iorg L/SB BOT C10T NB L1 BOT GE4T BH L3 GE4T (Phys)-Gen. Lab - AIM GE3T-Lab-PD	Zoo GE4 T RKK Zoo Lab SEC2P-Chem_Iorg L/SB BOT GE 4T BH L3 C10T (Phys) - AIM	Zoo GE4 P PC Zoo Lab SEC2P-Chem_Iorg L/SB GEO SEC-2 T SD GEO. LAB BOT C9P, PG, L1
		G		BOT DSC2DT SKD L3		BOT DSC2DP SKD L3 DSC1D/2D/3DT - (Phys) - SD	BOT SEC 2T, SKD L3		
	VI	H	DSE3T-Chem_Org L/SMA BOT C13T, NB, L2 DSE3P (Phys) - TK	Zoo C13T PC GEO SAL SD S7 DSE3P (Phys) - TK	Zoo C13P PC C14T-Chem_Phy L/SB GEO C13T IB PHY. LAB BOT DSE4P BH L2 DSE4P (Phys) - AP	Zoo C13T PC DSE4T-Chem_Phy L/SB GEO C13T SD GEO. LAB BOT DSE4P BH L2 DSE4P (Phys) - AP	Zoo C14T PAM GEO. DSE-3T SM GEO. LAB C13T (Phys) - TK	Zoo C14P PAM DSE3P-Chem_Org L/SMA GEO DSE-4T IB GEO. LAB BOT C13P NB L2 C13P (Phys) - AP	DSE3P-Chem_Org L/SMA BOT C13P NB L2 C13P (Phys) - AP
		G			BOT DSE 2BT UKK L2		BOT DSE2BT, PG, L2		



DAY	SEM		10-11	11-12	12-1	1-2	2-3	3-4	4-5
SAT	II	H		Hons-VAC02-Th	Hons-MDC-Th	GEO SAL SM2 PHY. LAB			
		G		Pass-VAC02-Th	Pass-MDC-Th				
	IV	H	Zoo-C10P-SKK	Zoo C9P SKK C10P-Chem_Org L/SMA GEO C9T SD S7 BOT C9T PG L1 C8T (Phys) - AIM Zoo-C10P-SKK	Zoo C9T PD C10P-Chem_Org L/SMA GEO C10T MMM GEO. LAB. BOT C8P NB L1 Zoo C9T-PD	GE4T-Chem_Org L/SB GEO C8T SD GEO LAB BOT C8P NB L1 GE4T (Phys)-Gen. Lab - AIM GE3-T-LAB-PD			
		G							
	VI	H	GEO DSE 4T MMM GEO LAB DSE4P (Phys) - SD	Zoo DSE 3T RKK C13P-Chem_Iorg L/BKM GEO C14T SM GEO LAB BOT C13T UKK L2 DSE4P (Phys) - SD	Zoo DSE 3T RKK C13P-Chem_Iorg L/BKM GEO C13T SD S7 BOT DSE3P PG L2 DSE4T (Phys) - AIM	Zoo DSE 4T PC DSE3T-Chem_Org L/SMA GEO DSE3T SM S7 BOT DSE3P PG L2 DSE3T (Phys) - TK	Zoo DSE 4P PC		
G		BOT DSE2BT UKK L3	Zoo DSE 2AT PAM	Zoo DSE 2AP PAM BOT DSE2BP UKK L3	Zoo SEC 2T PAM BOT DSE 2BP UKK L3				





NARAJOLE RAJ COLLEGE
(NAAC Accredited B Grade Govt. - Aided College)
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211



Academic Committee

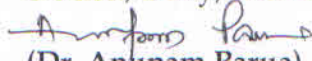
Notice

Dated: 02.11.2020

Notice is hereby given that an urgent online meeting of Academic Committee will be held on 02.11.2020 (Monday) at 09-00 PM in Google Meet Virtual Platform to discuss the following agenda. Please make it convenient to attend the meeting.

Agenda:

1. To read and confirm the proceedings of the last meeting held on 10.06.2020;
2. To discuss regarding academic preparedness (i.e., preparing of academic calendar, class routine, Distribution of syllabus, Teaching plans etc.) of the departments for the session 2020-21.
3. To discuss issues relating UG admission for the Academic Session 2020-21;
4. Misc., if any, with the permission of the Chair.


(Dr. Anupam Parua)
Principal

(Dr. Dipak Shom, Convenor)
Academic Committee

Principal
Narajole Raj College
Narajole-721211

Copy forwarded for information and necessary action to:

- (1) Dr. Tanuka Acharya (HOD, Philosophy)
- (2) Dr. Rajasree Debnath (HOD, Political Science)
- (3) Dr. Nilanjana Bhattacharyya (HOD, Bengali)
- (4) Prof. Baisali Guha ((HOD, History)
- (5) Prof. Soma Debray (HOD, English)
- (6) Prof. Anustup Chattapadhyaya (HOD, Sanskrit)
- (7) Dr. Uttam Kumar Kanp (HOD, Botany)
- (8) Dr. Tapanendu Kamilya (HOD, Physics)
- (9) Prof. Barun Kumar Mondal (HOD, Chemistry)
- (10) Dr. Sukamal Maity (HOD, Geography)
- (11) Dr. Ranajit Kumar Khalua (HOD, Zoology)
- (12) Dr. Akul Rana (HOD, Mathematics)
- (13) Prof. Pratim Maity (HOD, Education)
- (14) Prof. Parimal Dua (HOD, Physiology)
- (15) Dr. Atanu Nanda (HOD, Physical Education)
- (16) Dr. Mangal Kumar Nayak (Co-opted Member)

NB: Link for the said meeting will be shared in due course.


Principal
Narajole Raj College
Narajole-721211





Proceedings of the meeting of the Academic Committee held on 02.11.2020
(Friday) in the Google Meet Virtual Platform with Meeting ID: aek-auty-ffh
Meeting 02 of Academic session 2020-21

The meeting was chaired by Dr. Anupam Parua, the Principal of the College and Chairman of the Academic Committee. Detailed discussions took place on the noted agenda and the following resolutions were adopted:

1. The proceedings of the last meeting of the committee held on 10.06.2020 were read and confirmed without any amendment.

2. Members discussed at length regarding academic preparedness of the departments at the beginning of the session. Dr. Dipak Shom, convenor of the committee placed the **Academic Calendar** (tentative) of the session 2020-21 and the calendar is adopted in principle by the members. Here, honorable Principal added that as the session is going through the period of lock down and affiliating university not yet send the university academic calendar. So, the adherence of the calendar may be changed if any exigency is informed by the affiliating university. Dr. Dipak Shom, convenor of the committee reported the members that as per instruction of the honorable Principal classes of semester III and V were commenced from 14.09.2020. As the admission procedure is going on, the Classes of Semester I is expected to be commenced from the second week of December.

Honorable Principal here enquired about the preparedness of the departments regarding their academic services. Dr. T. Kamilya, HoD of Physics, informed that central routine of the session 2020-21 is circulated to the HoDs through their departmental domain email ids and as the session is going through the online classes so, the HoDs are requested to finalized their Video conferencing class (VCC) routines for their respective departments with the conformity of the central routine. Honorable Principal added that weekly VCC routine must be circulated in the students' WhatsApp groups for the convenience of the students. Besides that, HoDs may update and rectify their distribution of syllabus as per requirement of VCC classes; preparing of teaching plans must be checked and completed. Honorable Principal also gave emphasis on preparing of e-learning materials for the students. He explained that as library is closed due to lockdown so departments have to give importance on preparing of e-materials as to assist the students by all means. He also mentioned that for the preparing of the e materials teachers have to give priority on final year (Semester V & VI) courses. He proposed to do the activity in a time bound manner for the smooth completion of the syllabus. Members affirmed with him regarding the matter and assured the Head of the Institution regarding departmental preparedness.






**Proceedings of the meeting of the Academic Committee held on 02.11.2020
(Friday) in the Google Meet Virtual Platform with Meeting ID: aek-auty-ffh
Meeting 02 of Academic session 2020-21**

3. The notification regarding admission of students in more than one colleges issued by the Inspector of Colleges, Vidyasagar University wherein the IC earnestly requested to collect declaration from the admitted students regarding their admission status in more than one colleges indicating therein the choice of any one college surrendering the other seats for the purpose of registration by the university, within six days from the date of issuance of the notification, failing which, the registration of the studentship will be denied / cancelled by the University was discussed at length. After adequate discussion it was resolved that a declaration form in this regard would be developed in consultation with the technology provider of the college, namely M/S Affinity Infosoft. Further resolved that the Joint Convenors of the Technology Subcommittee be requested to take all the necessary measures to execute such declaration so that the report as desired by the IC, VU be tendered within stipulated time i.e., 09.11.2020 (FN)

With no other business left to be transacted the meeting ended with vote of thanks to and from the Chair.


Dr. Anupam Parua
(Chairman)

Principal
Narajole Raj College
Narajole-721211



Narajole Raj College



NARAJOLE RAJ COLLEGE
(NAAC Accredited B Grade) Government Aided College
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211



Departmental Meeting

DEPT. OF MATHEMATICS

Notice

Dated: 14.08.2020

An urgent meeting of the Dept. of Mathematics will be held on 16.08.2020 (Sunday) at 10.00 Hrs. via google meet. Please make it convenient to attend the meeting.

Agenda:

1. Read and confirm the proceedings of the last meeting.
2. To discuss regarding the departmental Webinar.
3. Distribution of the syllabus different papers of 1st, 3rd and 5th Semester.
4. To discuss on the routine of the faculties and it's follow up.
5. Discuss about the routine of VC classes of 3rd and 5th semester.
6. Miscellaneous, if any, with the permission of the chair.

Signature of the Chairman

(Dr. Anupam Parua)

Principal
Narajole Raj College
Narajole-721211

Signature of the Convenor

(Dr. Akul Rana (HOD))

Members:

1. Dr. Shreyasi Jana
2. Prof. Shilpa Patra
3. Prof. Siburam Paira
4. Prof. Puja Paul





Proceedings of the meeting of the Departmental Committee (Mathematics) held on 16-08-2020 (Sunday) via VC with ID - <https://meet.google.com/yao-gafm-cng>

In Attendance:

1. Dr. Anupam Parua - Principal & Chairman
2. Dr. Akul Rana - HoD & Convenor
3. Dr. Shreyasi Jana - Member
4. Prof. Shilpa Patra - Member
5. Prof. Siburam Paira - Member
6. Prof. Puja Paul - Member

The meeting was chaired by Dr. Anupam Parua, the Principal of the College and Chairman of the concerned Departmental Committee. Detailed discussions took place on the noted agenda and the following resolutions were adopted:

1. The Proceeding of the last meeting held on 22-06-2020 via online was read and confirmed without any amendment.
2. The national webinar entitled "Recent advances in Pure and Applied Mathematics" organized by Department of Mathematics, Narajole Raj College on 10-11 July, 2020 was completed successfully. The HOD thanks all the departmental teachers and the college authority for the co-operation in the webinar.
3. The HOD informed the house that the classes of odd semesters will be commence on shortly and therefore syllabus distribution among the teachers is necessary. After adequate discussion the syllabus is distributed as follows.

Class	Paper Name	Name of Teacher
Sem-I	C1T	Unit-I, II, IV-Dr Akul Rana Unit-III-Prof. Siburam Paira
	C2T	Unit-I, II, -Dr Shreyasi Jana Unit-III, IV-Prof. Shilpa Patra
	GE1T	Unit-I, II,-Dr Shreyasi Akul Rana Unit-III, IV-Prof. Siburam Paira
	DSC1AT	Upto Tracing of Curves-Dr. Shreyasi Jana Rest part-Prof Puja Paul
Sem-III	C5T	Unit-I, II, -Dr Shreyasi Jana Unit-III, IV-Prof. Shilpa Patra
	C6T	Unit-I, II-Dr Shreyasi Jana Unit-III-Prof. Puja Paul Unit- IV-Prof. Shilpa Patra



Proceedings of the meeting of the Departmental Committee (Mathematics) held on 16-08-2020 (Sunday) via VC with ID - <https://meet.google.com/yao-gafm-cng>

	C7T & C7P	Unit-I, II, III, IV -Prof. Siburam Paira Unit-V, VI -Prof. Puja Paul C7P -Dr. Akul Rana
	SEC1T	Dr. Akul Rana
	GE3T	Unit-I-Prof. Siburam Paira Unit-II, III, IV-Prof. Puja Paul
Sem-V	C11T	Unit-I, II, III -Dr Shreyasi Jana Unit- IV-Prof. Shilpa Patra
	C12T	Unit-I, II, III - Prof. Shilpa Patra Unit IV- Dr Shreyasi Jana
	DSE1T (LPP)	Unit-I, II-Dr. Akul Rana Unit-III-Prof Puja Paul
	DSE2T (Probability & Statistics)	Unit-I, II-Prof Siburam Paira Unit-III, IV-Prof. Puja Paul

4. The Head of the Department proposed a draft of *Class Routine (CR)* of odd semester for individual teachers of the department and the Combined Class Routine of the Mathematics Department as per *Distribution Chart (DC)* for different papers. After adequate discussion the routines were adopted with the incorporation of the amendments suggested by the members present in the meeting. It is unanimously resolved that the classes will be held as per the finalized routine after the commencement of classes by Vidyasagar University.
5. The HOD informed that as per decision of the Academic committee of the college the online class of the 3rd and 5th semester is to be start from 14.09.2020 and requested the members to express their opinion on a proposed routine for VC classes. After due discussion, it is resolved that two classes/ day from 11 am to 1 pm will be held for each semester (except sun day) and the routine is approved. The principal asked the teachers to develop sufficient number of quality e-material so that students are able to understand the subject.

As there was no further agenda for discussion, the meeting ended with a reciprocal vote of thanks to and from the Chair.


CHAIRMAN
(DR. ANUPAM PARUA)



Principal
Narajole Raj College
Narajole-721211



Narajole Raj College

Affiliated by
Vidyasagar University
Accredited : Grade B by NAAC

Estd.-1966

MASTER ROUTINE -SESSION-2020-2021-SEMESTER-I, III, V (ARTS)

Day	Sem	10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00
Monday	I (H)		C1T-Beng-SH (SCP) C1T-Eng-G3 (TG) C1T-San-G7 (AC) C1T-Phil-S3 (BM) C1T-His-S4 (BS) C1T-Pol.Sc-S5 (RD)	C2T-Beng-SH (MA) C2T-Eng-G7 (SDR) C2T-San-G3 (TR) C2T-Phil-S3 (ST) C2T-His-S4 (UC) C2T-Pol.Sc-S5 (BR)	GE1T-Beng-SH (DR) GE1T-Eng-S1 (SK) GE1T-San-S2 (KS) GE1T-Phil-S3 (BM) GE1T-His-G7 (UC) GE1T-Pol.Sc-S5 (XXX) GE1T-Edu-LRR (SIA)			
	I (G)	DSC1AT/2AT-Phy.Edu-A1 (AN) DSC1AT/2AT-San-A2 (TR)	DSC1AT/2AT-Phil-A6 (AG) DSC1AT/2AT-His-S2 (MKN)	AECC1T Core (ENG-I)	DSC1AT/2AT-Pol.Sc-TR (XXX)	DSC1AT/2AT-Phy.Edu-A8 (AN) DSC1AT/2AT-San-A5 (BB)	DSC1AT/2AT-Beng-G6 (MA)	DSC1AT/2AT-Edu-SH (SMA) DSC1AT/2AT-Eng-G1 (MM)
	III (H)		C5T-Beng-G6 (MA) C5T-Eng-G5 (SDR) C5T-San-G4 (BB) C5T-Phil-S1 (ST) C5T-His-G1 (UC) C5T-Pol.Sc-F. Annex (BR)	C6T-Beng-F5 (GJ) C6T-Eng-G5 (MM) C6T-San-G4 (KS) C6T-Phil-S2 (BM) C6T-His-G1 (BG) C6T-Pol.Sc-F. Annex (PS)	C7T-Beng-G6 (SCP) C7T-Eng-G5 (TG) C7T-San-G4 (US) C7T-Phil-S6 (ST) C7T-His-G1 (MKN) C7T-Pol.Sc-S7 (PS)	GE3T-Beng-SH (SP) GE3T-Eng-G5 (XXX) GE3T-San-G4 (AC) GE3T-Phil-G3 (XXX) GE3T-His-G1 (BS) GE3T-Pol.Sc-S6 (BR) GE3T-Edu-LRR (SMA)	SEC1T-Beng-SH (NB) SEC1T-Eng-G5 (SDR) SEC1T-San-G4 (KS) SEC1T-Phil-G3 (AG) SEC1T-His-G1 (MKN) SEC1T-Pol.Sc-S7 (RD)	

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	III (G)	DSC1CT/2CT-Edu-LRR (SIA) DSC1CT/2CT-Eng-A4 (MB)	DSC1CT/2CT-Phy.Edu-TR (AN) DSC1CT/2CT-San-S6 (US)	AECC3T Core (ENG-II)-S1 (SK)	DSC1CT/2CT-Phy.Edu-TR (PKM) DSC1CT/2CT-San-S4 (BB)	DSC1CT/2CT-Phil-A4 (ST) DSC1CT/2CT-His-S2 (UC)	DSC1CT/2CT-Pol.Sc-S2 (PS) DSC1CT/2CT-Beng-G7 (AC)	SEC1T-Beng-G7 (GJ) SEC1T-Eng-G5 (MB) SEC1T-San-G4 (AB) SEC1T-Phil-G3 (XXX) SEC1T-His-G6 (BS) SEC1T-Pol.Sc-S4 (BR) SEC1T-Edu-A2 (SIA) SEC1P-Phy.Edu-Field (AN)
	V (H)		DSE2T-Beng-LRR (NB) DSE2T-Eng-A1 (SK) DSE2T-San-A2 (AB) DSE2T-Phil-A3 (XXX) DSE2T-His-A4 (BG) DSE2T-Pol.Sc-TR (XXX)	C12T-Beng-LRR (SCP) C12T-Eng-A1 (MB) C12T-San-A2 (US) C12T-Phil-A3 (AG) C12T-His-A4 (MKN) C12T-Pol.Sc-S6 (RD)	C11T-Beng-G3 (GJ) C11T-Eng-A1 (SDR) C11T-San-A2 (AC) C11T-Phil-A3 (AG) C11T-His-A4 (BG) C11T-Pol.Sc-TR (RD)	DSE1T-Beng-G7 (DR) DSE1T-Eng-S1 (TG) DSE1T-San-G6 (TR) DSE1T-Phil-S3 (BM) DSE1T-His-S4 (BG) DSE1T-Pol.Sc-F. Annex (PS)	DSE2T-Beng-LRR (GJ) DSE2T-Eng-G7 (SK) DSE2T-San-S2 (US) DSE2T-Phil-S3 (ST) DSE2T-His-S4 (BG) DSE2T-Pol.Sc-S5 (BR)	
	V (G)	GE1T-Beng-SH (DR) GE1T-Eng-G5 (XXX) GE1T-San-G4 (KS) GE1T-Phil-G3 (XXX) GE1T-His-G1 (MKN) GE1T-Pol.Sc-G7 (XXX) GE1T-Edu-G6 (SMA) GE1T-Phy.Edu-A3 (PKM)	DSE1AT/2AT-His-A5 (XXX)	DSE1AT/2AT-Pol.Sc-TR (XXX)	DSE1AT/2AT-Phy.Edu-A5 (AN) DSE1AT/2AT-San-A6 (XXX)	DSE1AT/2AT-Phil-S5 (AG)	DSE1AT/2AT-Pol.Sc-S1 (XXX) DSE1AT/2AT-Beng-A4 (DR)	SEC3T-Beng-LRR (AC) SEC3T-Eng-G5 (XXX) SEC3T-San-S4 (BB) SEC3T-Phil-S3 (BM) SEC3T-His-S1 (UC) SEC3T-Pol.Sc-S2 (XXX) SEC3T-Edu-G7 (XXX) SEC3T-Phy.Edu-A1 (PKM)



Tuesday	I (H)			C1T-Beng-SH (DS) C1T-Eng-G7 (PPM) C1T-San-G5 (TJ) C1T-Phil-S2 (BM) C1T-His-G4 (BG) C1T-Pol.Sc-S1 (SS)	GE1T-Beng-SH (NB) GE1T-Eng-G7 (MM) GE1T-San-G5 (BB) GE1T-Phil-S1 (BM) GE1T-His-G4 (MKN) GE1T-Pol.Sc-S6 (PS) GE1T-Edu-A8 (PM)	C2T-Beng-SH (AC) C2T-Eng-G7 (MM) C2T-San-G5 (TR) C2T-Phil-S4 (ST) C2T-His-S5 (MKN) C2T-Pol.Sc-S3 (BR)	AECC1T Elective ENG-SH (MB)	
	I (G)	DSC1AT/2AT-His-G7 (UC) DSC1AT/2AT-Phil-S6 (XXX)	DSC1AP/2AP-Phy.Edu-Field (PKM)	DSC1AT/2AT-San-S3 (AC) DSC1AP/2AP-Phy.Edu-Field (AN)	DSC1AT/2AT-Beng-G1 (GJ) DSC1AT/2AT-Pol.Sc-TR (SS)	DSC1AT/2AT-Edu-A6 (PM) DSC1AT/2AT-Eng-A5 (TG)	AECC1T Elective BENG-G6 (DR)	AECC1T Core (ENG-I)-SH (PPM)
	III (H)		C6T-Beng-SH (AC) C6T-Eng-G6 (SDR) C6T-San-G1 (KS) C6T-Phil-S4 (BM) C6T-His-S5 (MKN) C6T-Pol.Sc-S6 (SS)	C7T-Beng-LRR (GJ) C7T-Eng-G3 (TG) C7T-San-G6 (TR) C7T-Phil-F5 (AG) C7T-His-S5 (NS) C7T-Pol.Sc-S6 (PS)	C5T-Beng-G3 (DR) C5T-Eng-S2 (SDR) C5T-San-S3 (RNM) C5T-Phil-S4 (TA) C5T-His-S5 (BPJ) C5T-Pol.Sc-F5 (RD)	GE3T-Beng-LRR (SCP) GE3T-Eng-A8 (XXX) GE3T-San-G1 (AB) GE3T-Phil-G3 (AG) GE3T-His-G4 (BPJ) GE3T-Pol.Sc-S6 (PS) GE3T-Edu-G6 (SMA)		
	III (G)	DSC1CT/2CT-His-S1 (BG) DSC1CT/2CT-Phil-S2 (ST)	AECC3T Core (ENG-II)-A2 (PPM)	DSC1CP/2CP-Phy.Edu-Field (PKM)	DSC1CT/2CT-San-A3 (US) DSC1CP/2CP-Phy.Edu-Field (PKM)	DSC1CT/2CT-Beng-S2 (MA) DSC1CT/2CT-Pol.Sc-S7 (RD)	DSC1CT/2CT-Edu-G1 (PM) DSC1CT/2CT-Eng-G3 (MM)	SEC1T-Beng-LRR (GJ) SEC1T-Eng-G5 (SDR) SEC1T-San-S4 (US) SEC1T-Phil-S3 (AG) SEC1T-His-S1 (NS) SEC1T-Pol.Sc-S2 (SS) SEC1T-Edu-G7 (PM) SEC1P-Phy.Edu-Field (AN)
	V (H)		C11T-Beng-LRR (GJ) C11T-Eng-G7 (MM) C11T-San-G5 (BB) C11T-Phil-S1 (TA) C11T-His-G4 (BG) C11T-Pol.Sc-S3 (RD)	C12T-Beng-G6 (DR) C12T-Eng-G1 (MB) C12T-San-A1 (KS) C12T-Phil-A2 (ST) C12T-His-A3 (UC) C12T-Pol.Sc-S7 (BR)	DSE2T-Beng-G6 (DS) DSE2T-Eng-LRR (PPM) DSE2T-San-A1 (AC) DSE2T-Phil-A2 (ST) DSE2T-His-A3 (BG) DSE2T-Pol.Sc-A4 (BR)	DSE1T-Beng-F5 (DS) DSE1T-Eng-S1 (SDR) DSE1T-San-A1 (RNM) DSE1T-Phil-A2 (BM) DSE1T-His-A3 (BG) DSE1T-Pol.Sc-A4 (SS)		

	V (G)	GE1T-Beng-LRR (MA) GE1T-Eng-G5 (XXX) GE1T-San-G4 (AC) GE1T-Phil-G3 (XXX) GE1T-His-G1 (BPJ) GE1T-Pol.Sc-A1 (XXX) GE1T-Edu-A2 (SMA) GE1T-Phy.Edu-A3 (AN)	DSE1AT/2AT-Phy.Edu-G3 (AN) DSE1AT/2AT-San-A5 (TJ)	DSE1AT/2AT-Pol.Sc-TR (XXX)	DSE1AT/2AT-San-A5 (TR) DSE1AT/2AT-Phy.Edu-TR (AN)	DSE1AT/2AT-Edu-A7 (SIA) DSE1AT/2AT-Eng-F. Annex (XXX)	DSE1AT/2AT-Beng-G7 (SCP)	SEC3T-Beng-G7 (AC) SEC3T-Eng-G5 (XXX) SEC3T-San-G4 (BB) SEC3T-Phil-G3 (BM) SEC3T-His-G6 (BPJ) SEC3T-Pol.Sc-S4 (XXX) SEC3T-Edu-A2 (SMA) SEC3T-Phy.Edu-A1 (PKM)
Wednesday	I (H)			C2T-Beng-SH (GJ) C2T-Eng-S3 (MB) C2T-San-S2 (US) C2T-Phil-A3 (AG) C2T-His-S4 (UC) C2T-Pol.Sc-S5 (SS)	GE1T-Beng-SH (DS) GE1T-Eng-G7 (MM) GE1T-San-G5 (KS) GE1T-Phil-A1 (TA) GE1T-His-G4 (BG) GE1T-Pol.Sc-Geo. Annex (PS) GE1T-Edu-S6 (SIA)	C1T-Beng-SH (SCP) C1T-Eng-G1 (PPM) C1T-San-G3 (TJ) C1T-Phil-S3 (TA) C1T-His-S4 (BG) C1T-Pol.Sc-S5 (RD)		
	I (G)	DSC1AT/2AT-Edu-A4 (SMA) DSC1AT/2AT-Eng-G7 (MM)	DSC1AP/2AP-Phy.Edu-Field (AN) DSC1AT/2AT-San-S1 (TR)	DSC1AP/2AP-Phy.Edu-Field (PKM)	DSC1AT/2AT-Phil-A5 (XXX)	AECC1T Core (ENG-I)-LRR (MM)	DSC1AT/2AT-His-G7 (NS)	DSC1AT/2AT-Pol.Sc-A1 (RD) DSC1AT/2AT-Beng-G7 (MA)
	III (H)		C5T-Beng-SH (DR) C5T-Eng-G5 (SDR) C5T-San-G4 (RNM) C5T-Phil-S3 (TA) C5T-His-G1 (BS) C5T-Pol.Sc-S2 (RD)	C6T-Beng-G6 (DS) C6T-Eng-G5 (MM) C6T-San-G4 (TJ) C6T-Phil-S6 (XXX) C6T-His-G1 (NS) C6T-Pol.Sc-S7 (PS)	C7T-Beng-LRR (SCP) C7T-Eng-S2 (PPM) C7T-San-S3 (US) C7T-Phil-F5 (AG) C7T-His-S4 (NS) C7T-Pol.Sc-S5 (SS)	GE3T-Beng-G4 (SP) GE3T-Eng-G5 (XXX) GE3T-San-G6 (RNM) GE3T-Phil-G7 (BM) GE3T-His-S2 (BPJ) GE3T-Pol.Sc-S6 (PS) GE3T-Edu-S4 (PM)	C7T-Beng-G6 (GJ) C7T-Eng-G5 (PPM) C7T-San-G4 (TR) C7T-Phil-G3 (XXX) C7T-His-G1 (BS) C7T-Pol.Sc-G7 (PS)	

	III (G)	DSC1CT/2CT-Edu-LRR (SIA) DSC1CT/2CT-Eng-A5 (MB)		AECC3T Core (ENG-II)-LRR (SK)	DSC1CP/2CP-Phy.Edu-Field (AN) DSC1CT/2CT-San-G6 (BB)	DSC1CP/2CP-Phy.Edu-Field (PKM)	DSC1CT/2CT-Pol.Sc-S2 (SS) DSC1CT/2CT-Beng-S1 (AC)	DSC1CT/2CT-Phil-S1 (XXX) DSC1CT/2CT-His-S2 (BG)
	V (H)		C12T-Beng-G6 (DS) C12T-Eng-LRR (PPM) C12T-San-G7 (KS) C12T-Phil-A2 (XXX) C12T-His-G3 (UC) C12T-Pol.Sc-TR (SS)	C11T-Beng-LRR (AC) C11T-Eng-G3 (SDR) C11T-San-A1 (BB) C11T-Phil-A2 (BM) C11T-His-F5 (BPJ) C11T-Pol.Sc-A4 (RD)	DSE1T-Beng-G3 (GJ) DSE1T-Eng-S1 (SDR) DSE1T-San-A1 (TJ) DSE1T-Phil-A2 (BM) DSE1T-His-A3 (BS) DSE1T-Pol.Sc-A4 (XXX)	C12T-Beng-S6 (DS) C12T-Eng-F5 (MB) C12T-San-S3 (US) C12T-Phil-S7 (AG) C12T-His-S5 (UC) C12T-Pol.Sc-S1 (SS)		
	V (G)	GE1T-Beng-SH (DR) GE1T-Eng-G5 (XXX) GE1T-San-G4 (BB) GE1T-Phil-G3 (TA) GE1T-His-G1 (BS) GE1T-Pol.Sc-S2 (XXX) GE1T-Edu-G6 (PM) GE1T-Phy.Edu-A7 (AN)	DSE1AT/2AT-Phil-A4 (AG) DSE1AT/2AT-His-S4 (BG)	DSE1AT/2AT-Edu-G7 (PM) DSE1AT/2AT-Eng-A5 (XXX)	DSE1AT/2AT-His-A6 (UC)	DSE1AT/2AT-Pol.Sc-TR (XXX) DSE1AT/2AT-Beng-A5 (DR)	DSE1AT/2AT-Phy.Edu-A2 (AN) DSE1AT/2AT-San-A3 (RNM)	GE1T-Beng-SH (DS) GE1T-Eng-G5 (XXX) GE1T-San-G4 (TJ) GE1T-Phil-G3 (XXX) GE1T-His-G1 (BPJ) GE1T-Pol.Sc-S2 (XXX) GE1T-Edu-G6 (PM) GE1T-Phy.Edu-G7 (AN)
Thursday	I (H)		C2T-Beng-F5 (MA) C2T-Eng-S1 (MM) C2T-San-S2 (AB) C2T-Phil-S3 (ST) C2T-His-S4 (MKN) C2T-Pol.Sc-S5 (PS)	C1T-Beng-SH (SP) C1T-Eng-F5 (PPM) C1T-San-G3 (RNM) C1T-Phil-S3 (TA) C1T-His-S4 (BS) C1T-Pol.Sc-S5 (SS)	GE1T-Beng-SH (DS) GE1T-Eng-S1 (MM) GE1T-San-S2 (BB) GE1T-Phil-S3 (BM) GE1T-His-S4 (MKN) GE1T-Pol.Sc-S5 (PS) GE1T-Edu-G7 (PM)	AECC1T Elective ENG-SH (MB)		
	I (G)	DSC1AT/2AT-Pol.Sc-S3 (XXX) DSC1AT/2AT-Beng-G6 (GJ)	DSC1AT/2AT-San-A8 (BB) DSC1AT/2AT-Phy.Edu-A5 (AN)	DSC1AT/2AT-Phil-A5 (XXX)	DSC1AT/2AT-His-A6 (NS)	AECC1T Elective BENG-S5 (DR)	AECC1T Core (ENG-I)-SH (PPM)	DSC1AT/2AT-Edu-G7 (PM) DSC1AT/2AT-Eng-G6 (MM)

	III (H)		C6T-Beng-G6 (GJ) C6T-Eng-G5 (TG) C6T-San-G4 (TJ) C6T-Phil-G3 (BM) C6T-His-G1 (NS) C6T-Pol.Sc-S6 (BR)	C7T-Beng-G6 (NB) C7T-Eng-G5 (TG) C7T-San-G4 (AB) C7T-Phil-S2 (ST) C7T-His-G1 (MKN) C7T-Pol.Sc-S6 (PS)	C5T-Beng-G6 (MA) C5T-Eng-F5 (SK) C5T-San-G4 (AC) C5T-Phil-S7 (TA) C5T-His-G1 (BS) C5T-Pol.Sc-S6 (SS)	GE3T-Beng-G6 (MA) GE3T-Eng-G5 (XXX) GE3T-San-G4 (AB) GE3T-Phil-G3 (BM) GE3T-His-A3 (BPJ) GE3T-Pol.Sc-A4 (PS) GE3T-Edu-G7 (SMA)	SEC1T-Beng-G6 (NB) SEC1T-Eng-G5 (MB) SEC1T-San-G4 (KS) SEC1T-Phil-G3 (ST) SEC1T-His-G1 (MKN) SEC1T-Pol.Sc-S6 (SS)	
	III (G)	DSC1CT/2CT-Pol.Sc-S1 (SS) DSC1CT/2CT-Beng-LRR (SP)	AECC3T Core (ENG-II)-A6 (MB)	SEC1P-Phy.Edu-Field (PKM)	SEC1P-Phy.Edu-Field (PKM)	DSC1CT/2CT-Edu-S3 (SIA) DSC1CT/2CT-Eng-S2 (MM)	DSC1CT/2CT-San-A1 (US) DSC1CT/2CT-Phy.Edu-A2 (AN)	DSC1CT/2CT-Phil-A1 (ST) DSC1CT/2CT-His-A2 (MKN)
	V (H)		C11T-Beng-SH (AC) C11T-Eng-LRR (SK) C11T-San-A1 (AC) C11T-Phil-A2 (TA) C11T-His-A3 (BPJ) C11T-Pol.Sc-A4 (SS)	DSE1T-Beng-LRR (DS) DSE1T-Eng-S1 (MM) DSE1T-San-A1 (TJ) DSE1T-Phil-A2 (BM) DSE1T-His-A3 (NS) DSE1T-Pol.Sc-A4 (BR)	DSE2T-Beng-LRR (GJ) DSE2T-Eng-S1 (MB) DSE2T-San-A1 (US) DSE2T-Phil-A2 (ST) DSE2T-His-A3 (BPJ) DSE2T-Pol.Sc-TR (BR)			
	V (G)	GE1T-Beng-SH (DS) GE1T-Eng-G5 (XXX) GE1T-San-G4 (AC) GE1T-Phil-G3 (TA) GE1T-His-G1 (NS) GE1T-Pol.Sc-G7 (XXX) GE1T-Edu-A1 (PM) GE1T-Phy.Edu-A2 (AN)	DSE1AT/2AT-Beng-G7 (SP)	DSE1AT/2AT-Pol.Sc-A6 (XXX)	DSE1AT/2AT-His-G6 (XXX)	DSE1AT/2AT-Edu-S6 (PM) DSE1AT/2AT-Eng-A2 (XXX)	DSE1AT/2AT-Phy.Edu-S4 (PKM) DSE1AT/2AT-San-S2 (AC)	DSE1AT/2AT-Phil-S4 (XXX)



Friday	I (H)		C2T-Beng-SH (AC) C2T-Eng-S1 (MM) C2T-San-S2 (US) C2T-Phil-S3 (ST) C2T-His-S4 (BS) C2T-Pol.Sc-S5 (BR)	C1T-Beng-SH (DS) C1T-Eng-S1 (TG) C1T-San-F5 (AC) C1T-Phil-S3 (TA) C1T-His-S4 (BG) C1T-Pol.Sc-S5 (RD)	GE1T-Beng-SH (DR) GE1T-Eng-S1 (SK) GE1T-San-G5 (KS) GE1T-Phil-S3 (BM) GE1T-His-G1 (MKN) GE1T-Pol.Sc-S5 (XXX) GE1T-Edu-G7 (PM)			
	I (G)	DSC1AT/2AT-His-G7 (NS) DSC1AT/2AT-Phil-S1 (XXX)	DSC1AT/2AT-Beng-A5 (SP)	DSC1AT/2AT-Pol.Sc-TR (XXX)	DSC1AT/2AT-Phy.Edu-TR (PKM) DSC1AT/2AT-San-G3 (AC)	DSC1AT/2AT-Phil-A5 (TA)	DSC1AT/2AT-Eng-A2 (TG) DSC1AT/2AT-Edu-A3 (SMA)	AECC1T Core (ENG-I)-SH (PPM)
	III (H)		C7T-Beng-G6 (NB) C7T-Eng-G5 (PPM) C7T-San-G4 (TR) C7T-Phil-G3 (XXX) C7T-His-G1 (MKN) C7T-Pol.Sc-S6 (SS)	C6T-Beng-G6 (AC) C6T-Eng-G5 (SDR) C6T-San-G4 (TJ) C6T-Phil-G3 (ST) C6T-His-G1 (MKN) C6T-Pol.Sc-S6 (BR)	C5T-Beng-G6 (SP) C5T-Eng-S2 (SDR) C5T-San-G4 (RNM) C5T-Phil-F5 (ST) C5T-His-S4 (UC) C5T-Pol.Sc-Geo. Annex (RD)	GE3T-Beng-G6 (MA) GE3T-Eng-G5 (XXX) GE3T-San-G4 (RNM) GE3T-Phil-G3 (AG) GE3T-His-G1 (BS) GE3T-Pol.Sc-S6 (SS) GE3T-Edu-G7 (SMA)		
	III (G)	DSC1CT/2CT-His-G5 (BS) DSC1CT/2CT-Phil-G3 (BM)	DSC1CT/2CT-Pol.Sc-TR (XXX)	DSC1CT/2CT-Beng-A5 (SP)	DSC1CT/2CT-Phy.Edu-A5 (AN) DSC1CT/2CT-San-A6 (BB)	DSC1CT/2CT-Eng-S1 (MM) DSC1CT/2CT-Edu-S2 (PM)	AECC3T Core (ENG-II)-SH (PPM)	



			DSE1T-Beng-G7 (DR) DSE1T-Eng-LRR (SDR) DSE1T-San-A1 (RNM) DSE1T-Phil-A2 (XXX) DSE1T-His-A3 (UC) DSE1T-Pol.Sc-A4 (XXX)	C11T-Beng-G7 (NB) C11T-Eng-LRR (MM) C11T-San-A1 (BB) C11T-Phil-A2 (BM) C11T-His-A3 (BPJ) C11T-Pol.Sc-A4 (SS)	DSE2T-Beng-LRR (DS) DSE2T-Eng-S6 (PPM) DSE2T-San-A1 (AB) DSE2T-Phil-A2 (TA) DSE2T-His-A3 (BPJ) DSE2T-Pol.Sc-A4 (SS)	C12T-Beng-SH (DR) C12T-Eng-LRR (PPM) C12T-San-A1 (AB) C12T-Phil-A2 (ST) C12T-His-F5 (MKN) C12T-Pol.Sc-A4 (RD)		
	V (H)							
		GE1T-Beng-LRR (MA) GE1T-Eng-A7 (XXX) GE1T-San-G4 (TJ) GE1T-Phil-A5 (XXX) GE1T-His-G1 (BPJ) GE1T-Pol.Sc-A6 (XXX) GE1T-Edu-G6 (SMA) GE1T-Phy.Edu-A8 (AN)	DSE1AT/2AT-His-A8 (BG)	DSE1AT/2AT-Phil-A6 (XXX)	DSE1AT/2AT-Phy.Edu.-PE Lab (XXX) DSE1AT/2AT-San-A8 (US)	DSE1AT/2AT-Eng-S3 (XXX) DSE1AT/2AT-Edu-S4 (XXX)	DSE1AT/2AT-Beng-LRR (DR) DSE1AT/2AT-Pol.Sc-S2 (XXX)	DSE1AT/2AT-Phil-G1 (XXX)
	V (G)							
Saturday	I (H)		C2T-Beng-SH (GJ) C2T-Eng-S1 (MB) C2T-San-S2 (AB) C2T-Phil-S3 (AG) C2T-His-S4 (MKN) C2T-Pol.Sc-S5 (BR)	C1T-Beng-SH (SP) C1T-Eng-S1 (PPM) C1T-San-F5 (RNM) C1T-Phil-S3 (TA) C1T-His-S4 (BS) C1T-Pol.Sc-S7 (SS)	GE1T-Beng-G1 (NB) GE1T-Eng-S1 (SK) GE1T-San-G3 (AB) GE1T-Phil-S3 (TA) GE1T-His-S4 (MKN) GE1T-Pol.Sc-Com Lab (PS) GE1T-Edu-G7 (SIA)			
		AECC1T Core (ENG-I)-SH (TG)	DSC1AT/2AT-His-G7 (NS)	DSC1AT/2AT-Edu-S5 (PM) DSC1AT/2AT-Eng-A5 (TG)	DSC1AT/2AT-Beng-A5 (SP)	DSC1AT/2AT-Pol.Sc-S1 (PS)		
	I (G)							



					GE3T-Beng-G6 (SCP) GE3T-Eng-G5 (XXX) GE3T-San-A1 (AC) GE3T-Phil-S2 (XXX) GE3T-His-G4 (NS) GE3T-Pol.Sc-A4 (BR) GE3T-Edu-A2 (PM)			
III (H)			C5T-Beng-G6 (SP) C5T-Eng-G5 (SK) C5T-San-G4 (AC) C5T-Phil-G3 (ST) C5T-His-G1 (BPJ) C5T-Pol.Sc-S6 (SS)	C6T-Beng-G6 (DS) C6T-Eng-G5 (SDR) C6T-San-G4 (TJ) C6T-Phil-G3 (ST) C6T-His-G1 (NS) C6T-Pol.Sc-S6 (BR)				
	III (G)	AECC3T Core (ENG-II)- LRR (PPM)	DSC1CT/2CT-His-A8 (BS)	DSC1CT/2CT-Edu- A8 (XXX) DSC1CT/2CT-Eng-A6 (MB)	DSC1CT/2CT-Phil-A6 (ST)	DSC1CT/2CT-Beng-F3 (SP) DSC1CT/2CT-Pol.Sc-S2 (RD)		
	V (H)		C11T-Beng-F4 (NB) C11T-Eng-LRR (SDR) C11T-San-A1 (TJ) C11T-Phil-A2 (TA) C11T-His-A3 (BG) C11T-Pol.Sc-A4 (RD)	C12T-Beng-G7 (SCP) C12T-Eng-A1 (SK) C12T-San-F2 (AB) C12T-Phil-A2 (AG) C12T-His-A3 (UC) C12T-Pol.Sc-A4 (RD)	DSE1T-Beng-SH (GJ) DSE1T-Eng-LRR (TG) DSE1T-San-F5 (TR) DSE1T-Phil-S7 (AG) DSE1T-His-A3 (BG) DSE1T-Pol.Sc-F. Annex (SS)	DSE2T-Beng-F4 (NB) DSE2T-Eng-SH (SK) DSE2T-San-F1 (AC) DSE2T-Phil-S2 (TA) DSE2T-His-G6 (MKN) DSE2T-Pol.Sc-S3 (BR)		
	V (G)	DSE1AT/2AT-Edu-G6 (SIA) DSE1AT/2AT-Eng-G7 (XXX)	DSE1AT/2AT-His-A6 (UC)	DSE1AT/2AT-Edu- LRR (SIA) DSE1AT/2AT-Eng- A7 (XXX)	DSE1AT/2AT-Phil-A7 (XXX)	DSE1AT/2AT-Beng-G7 (SCP)		



Narajole Raj College

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MASTER ROUTINE -SESSION-2020-2021-SEMESTER-I, III, V (SCIENCE)

Day	Semester	10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00	04.00-05.00
Monday	I (H)		C1T (Phys)-Gen Lab C1T (Chem)-Org L C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-A7	C2T (Phys)-Gen Lab C2T (Chem)-Org L C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-A7	GE1T (Chem)- GE1T (Phys)-Gen Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Comp. Lab GE1T (Geo)-Lab GE1T (Physio)-Lab-SKK	C1P (Phys)-Com. Lab C1P (Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1 C1T (Geo)-Lab	C1P (Phys)-Com Lab C1P(Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1	
	I (G)	DSC-1/2/3AT- Chem- Org Lab	DSC-1/2/3AT-Chem- TR	DSC-1/2/3A-Zoo-Tech. Room	DSC-1/2/3AT-Physio- Lab1-SKK DSC-1/2/3AT-Geo-TR	DSC-1/2/3AP-Phys- Lab DSC-1/2/3AP-Bot- Lab	DSC-1/2/3AP-Phys- Lab DSC-1/2/3AP-Bot-Lab	DSC-1/2/3AT-Math- A7
	III (H)	C5P (Phys)-Com Lab C5P (Chem)-Phyc L C5P (Bot)-L1 C5P (Zoo)-L1	C5P (Phys)-Com Lab C5P (Chem)-Phyc Lab C5P (Bot)-L2 C5P (Zoo)-L2 C5T (Math)-TR C5T (Geo)-A8	C5T (Phys)-Dept. Annex C5T (Chem)-Com Lab C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-TR C5T (Geo)-SH Annex	C6T (Phys)-Dept. Annex C6T (Chem)-Org L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-Dept C6T (Geo)-F5	C7T (Phys)-Dept. Annex C7T (Chem)-Iorg L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-Dept C7T (Geo)-A7	GE3P (Phys)-Electri. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3T (Geo)-S6 GE3P (Physio)-Lab- SKK	GE3P (Phys)-Electri. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3P (Physio)-Lab- SKK
	III (G)	DSC-1/2/3CT-Phys- Elec. Lab DSC-1/2/3CT-Bot- L3	DSC-1/2/3CT-Chem- Geo Annex	DSC-1/2/3CT-Math- Geo Annex DSC-1/2/3CT-Zoo- Annex Lab	DSC-1/2/3CT-Physio- Lab2-SKK DSC-1/2/3CT-Geo-Geo Annex-	DSC-1/2/3CP-Physio- Lab2-SKK DSC-1/2/3CP-Geo- Lab	DSC-1/2/3CP-Physio- Lab2-SKK DSC-1/2/3CP-Geo-Lab	DSC-1/2/3CT-Math- Dept-Geo Annex

	V (H)		DSE1T (Phys)-Electri. Lab DSE1P(Chem)-Iorg Lab DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE1T (Math)-F5 DSE1P (Geo)-Lab	DSE2T (Phys)-Electri. Lab DSE1P(Chem)-Iorg Lab DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE2T (Math)-G6 DSE1P (Geo)-Lab	C12T (Phys)-Electri. Lab C12T (Chem)-Iorg L C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-F. Annex C12T (Geo)-A7	DSE1T (Phys)-Electric. Lab DSE1T(Chem)-F5 DSE1T (Bot)-L3 DSE1T (Zoo)-CL1 DSE1T (Math)-A2 DSE1T (Geo)-SH. Annex	C11P (Phys)-Com. Lab C11P(Chem)-Iorg. lab C11P (Bot)-L3 C11P (Zoo)-CL1 C11T (Math)-Dept C11P (Geo)-Lab	C11P (Phys)-Com. Lab C11P(Chem)-Iorg. Lab C11P (Bot)-L3 C11P (Zoo)-CL1 C11P (Geo)-Lab
	V (G)	DSE-1/2/3AT-Phys-Elecn. Lab DSE-1/2/3AT-Bot-A4	DSE-1/2/3AT-Chem-Physics Annex	DSE-1/2/3AT-Zoo-Physio. L	DSE-1/2/3AT-Physio-SKK DSE-1/2/3AT-Geo-A8	DSE-1/2/3AP-Physio-Lab-SKK DSE-1/2/3AP-Geo-lab	DSE-1/2/3AP-Physio-Lab-SKK DSE-1/2/3AP-Geo-Lab	DSE-1/2/3AT-Math-F. Annex
Tuesday	I (H)		C2T (Phys)-Gen Lab C2T (Chem)-Org L C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-Lab	C1T (Phys)-Gen Lab C1T (Chem)-Org L C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-Lab	GE1P (Chem)- GE1P (Phys)-Electron. Lab GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-Lab GE1P (Physio)-Lab-SKK	GE1P (Chem)- GE1P (Phys)-Electron. Lab GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1P (Physio)-Lab-SKK	AECC: ENG-Sem. Hall	
	I (G)	DSC-1/2/3AT-Phys-Gen Lab DSC-1/2/3AT-Bot-L2	DSC-1/2/3AT-Phys-Elecn. Lab DSC-1/2/3AT-Bot-SH Annex	DSC-1/2/3AT-Math-TR DSC-1/2/3AT-Zoo-TR	DSC-1/2/3AP-Chem-Lab	DSC-1/2/3AP-Chem-Lab	AECC: ENG-Sem. Hall	DSC-1/2/3AT-Physio-Lab-PD DSC-1/2/3AT-Geo-Lab
	III (H)		Annex C5T (Chem)-Iorg L C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-F. Annex C5T (Geo)-A7	C6T (Phys)-Dept. Annex C6T (Chem)-Iorg L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-F. Annex C6T (Geo)-A7	C7T (Phys)-Dept. Annex C7T (Chem)-Org L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-F. Annex C7T (Geo)-A7	GE3T (Phys)-Gen. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Org L GE3T (Geo)-A7 GE3T (Physio)-Lab-PD	C6P (Phys)-Electric. Lab C6P (Chem)-Inorg L C6P (Bot)-L2 C6P (Zoo)-L2 C6P (Geo)-Lab	C6P (Phys)-Electric. Lab C6P (Chem)-Inorg L C6P (Bot)-L2 C6P (Zoo)-L2 C6P (Geo)-Lab

	III (G)	DSC-1/2/3CT-Chem-ILab	DSC-1/2/3CT-Phys-Opt. Lab DSC-1/2/3CT-Bot-A4	DSC-1/2/3CT-Math-Geo Annex DSC-1/2/3CT-Zoo-Annex Lab	DSC-1/2/3CP-Chem Lab	DSC-1/2/3CP-Chem-Lab	DSC-1/2/3CT-Physio-Lab1-PD DSC-1/2/3CT-Geo-Lab1	SEC-1T-Math-Dept
	V (H)		C11T (Phys)-Electric. Lab C11T (Chem)-Com. Lab C11T (Bot)-L3 C11T (Zoo)-CL1 C11T (Math)-F5 C11T (Geo)-S2	C12T (Phys)-Electric. Lab C12T (Chem)-Com. Lab C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-S4 C12T (Geo)-A4	DSE2T (Phys)-Electric. Lab DSE2T(Chem)-Iorg L DSE2T (Bot)-L3 DSE2T (Zoo)-CL1 DSE2T (Math)-Comp. Lab DSE2T (Geo)-SH Annex	C12P (Phys)-Electric. Lab C12P (Chem)-Org L C12P (Bot)-L3 C12P(Zoo)-CL1 C12T (Math)-Dept C12P (Geo)-Lab	C12P (Phys)-Electric. Lab C12P (Chem)-Org L C12P (Bot)-L3 C12P(Zoo)-CL1 C12P (Geo)-Lab	
	V (G)	DSE-1/2/3AT-Chem-S2	DSE-1/2/3AT-Phys-Opt. Lab DSE-1/2/3AT-Bot-TR	DSE-1/2/3AT-Math-A8 DSE-1/2/3AT-Zoo-A6	DSE-1/2/3AP-Chem-Lab	DSE-1/2/3AP-Chem-Lab	DSE-1/2/3AP-Phys-Lab DSE-1/2/3AP-Bot-Lab	DSE-1/2/3AP-Phys-Lab DSE-1/2/3AP-Bot-Lab
Wednesday	I (H)		C1T (Phys)-Gen Lab C1T (Chem)-Org L C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-F5 C1T (Geo)-Lab	C2T (Phys)-Gen Lab C2T (Chem)-Org L C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-Lab	GE1T (Chem)- GE1T (Phys)-Gen Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-A7 GE1T (Physio)-Lab-PD	C2P (Phys)-Gen Lab C2P (Chem)-Phyc L C2P (Bot)-L1 C2P (Zoo)-L1 C2P (Geo)-Lab	C2P (Phys)-Gen Lab C2P (Chem)-Phyc L C2P (Bot)-L1 C2P (Zoo)-L1 C2P (Geo)-Lab	
	I (G)	DSC-1/2/3AT-Math-Dept DSC-1/2/3AT-Zoo-L1	DSC-1/2/3AT-Physio-Lab1-PD DSC-1/2/3AT-Geo-Tech. Room-	DSC-1/2/3AT-Chem-TR	DSC-1/2/3AP-Physio-Lab1-PD DSC-1/2/3AP-Geo-Lab	DSC-1/2/3AP-Physio-Lab1-PD DSC-1/2/3AP-Geo-Lab		



	III (H)		C5T (Phys)-Dept. Annex C5T (Chem)-Iorg L C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-Dept C5T (Geo)-A7	C6T (Phys)-Dept. Annex C6T (Chem)-Iorg L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-F. Annex C6T (Geo)-A7	C7T (Phys)-Dept. Annex C7T (Chem)-Iorg L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-TR C7T (Geo)-A7	GE3T (Phys)-Electric. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Iorg L GE3T (Geo)-A7 GE3T (Physio)-Lab-PD	C7P (Phys)-Electron. Lab C7P(Chem)-Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab	C7P (Phys)-Electron. Lab C7P(Chem)-Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab
	III (G)	DSC-1/2/3CT-Math-F. Annex DSC-1/2/3CT-Zoo-L2	DSC-1/2/3CT-Physio-Lab2-PD DSC1/2/3CT-Geo-Geo Annex-	DSC-1/2/3CT-Phys-Electron. lab DSC-1/2/3CT-Bot-Geo Annex	DSC-1/2/3CT-Chem-Tech Room	DSC-1/2/3CP-Phys-lab DSC-1/2/3CP-Bot-Lab	DSC-1/2/3CP-Phys-Lab DSC-1/2/3CP-Bot lab	
	V (H)	DSE2P(Chem)-Org L DSE2P (Bot)-L3 DSE2P (Zoo)-L3 DSE2T (Geo)-Lab	DSE2P(Chem)-Org. Lab DSE2P (Bot)-L3 DSE2P (Zoo)-L3 DSE2T (Geo)-F. Annex	C11T (Phys)-Electric. Lab C11T (Chem)-Com. Lab C11T (Bot)-L3 C11T (Zoo)-L3 C11T (Math)-S1 C11T (Geo)-A8	DSE1T (Phys)-Electric. Lab DSE1T(Chem)-Org L DSE1T (Bot)-L3 DSE1T (Zoo)-L3 DSE1T (Math)-F Annex DSE1T (Geo)-Comp. Lab	DSE2T (Phys)-Dept. Annex DSE2T(Chem)-Org Lab DSE2T (Bot)-L3 DSE2T (Zoo)-L3 DSE2T (Math)-Dept DSE2T (Geo)-F. Annex	C11P (Phys)-Com. Lab C11P(Chem)-Iorg L C11P (Bot)-L3 C11P (Zoo)-L3 C11T (Math)-Dept C11P (Geo)-Lab	C11P (Phys)-Com. Lab C11P(Chem)-Iorg L C11P (Bot)-L3 C11P (Zoo)-L3 C11P (Geo)-Lab
	V (G)	DSE-1/2/3AT-Math-	DSE-1/2/3AT-Physio-Comp Lab-SKK DSE-1/2/3AT-Geo-Lab-	DSE-1/2/3AT-Chem-Teac. R	DSE-1/2/3AT-Chem-Phyc Lab	DSE-1/2/3AT-Math-TR DSE-1/2/3AT-Zoo-CL1	DSE-1/2/3AT-Physio-Lab2-PD DSE-1/2/3AT-Geo-A7	
Thursday	I (H)		C2P (Phys)-Gen Lab C2P (Chem)-Phyc Lab C2P (Bot)-L1 C2P (Zoo)-L1 C2P (Geo)-Lab C2T (Math)-Dept	C2P (Phys)-Gen Lab C2P (Chem)-Phyc Lab C2P (Bot)-L1 C2P (Zoo)-L1 C2P (Geo)-Lab C1T (Math)-Dept	GE1T (Chem)- GE1T (Phys)-Gen Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-A8 GE1T (Physio)-Lab-PD	AECC: ENG-Sem. Hall		

	I (G)	DSC-1/2/3AP- Chem-Lab	DSC-1/2/3AP-Chem- Lab	DSC-1/2/3AT-Math- Geo Annex DSC-1/2/3AT-Zoo- Annex lab	DSC-1/2/3AT-Chem-TR-	AECC: ENG-Sem. Hall	DSC-1/2/3AT-Phys- Lab DSC-1/2/3AT-Bot-Lab	DSC-1/2/3AT-Physio- Lab-PD DSC-1/2/3AT-Geo- Geo Annex-
	III (H)		C5P (Phys)-Com. Lab C5P (Chem)-Phy L C5P (Bot)-L2 C5P (Zoo)-L2 C6T (Math)-Dept	C5P (Phys)-Com. Lab C5P (Chem)-Phy Lab C5P (Bot)-L2 C5P (Zoo)-L2 C5T (Math)-F. Anx C5T (Geo)-A7	C6T (Phys)-Dept. Annex C6T (Chem)-Iorg L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-F. Anx C6T (Geo)-A7	C7T (Phys)-Dept. Annex C7T (Chem)-Iorg L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-Dept C7T (Geo)-Lab	GE3P (Phys)-Electric. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3T (Geo)-F. Anx GE3P (Physio)-Lab-PD	GE3P (Phys)-Electric. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3P (Physio)-Lab- PD
	III (G)	DSC-1/2/3CP- Chem-lab	DSC-1/2/3CP-Chem- Lab	DSC-1/2/3CT-Math-TR DSC-1/2/3CT-Zoo-TR	DSC-1/2/3CT-Physio- Lab-PD DSC-1/2/3CT-Geo-Lab-	DSC-1/2/3CT-Phys- Lab DSC-1/2/3CT-Bot- Geo. Annex	DSC-1/2/3CT-Chem- Org L	SEC1T (Phys)-A1 SEC1T (Bot)-A2 SEC1T (Zoo)-A3 SEC1T (Math)-A4 SEC1T (Geo)-G1 SEC1T-(Chem)-G3 SEC1T- (Physio)-G4- PD
	V (H)		C11T (Phys)-Electric. Lab C11T (Chem)-Org Lab C11T (Bot)-L3 C11T (Zoo)-CL1 C11T (Math)-F. Anx C11T (Geo)-SH Anx	Lab C12T (Chem)-Physical Lab C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-G7 C12T (Geo)-SH Anx	DSE1T (Phys)-Electric. Lab DSE1T(Chem)-Org L DSE1T (Bot)-L3 DSE1T (Zoo)-CL1 DSE1T (Math)-Com lab DSE1T (Geo)-A4	DSE2T (Phys)-Electric. Lab DSE2T(Chem)-Org L DSE2T (Bot)-L3 DSE2T (Zoo)-CL1 DSE2T (Math)-F Anx DSE2T (Geo)-A7	C12P (Phys)-Electric. Lab C12P (Chem)-Org L C12P (Bot)-L3 C12P(Zoo)-CL1 C12T (Math)-Dept C12P (Geo)-Lab	C12P (Phys)-Electric. Lab C12P (Chem)-Org L C12P (Bot)-L3 C12P(Zoo)-CL1 C12P (Geo)-Lab

15/07/2022
 15/07/2022
 15/07/2022



	V (G)	DSE-1/2/3AP-Chem-Lab	DSE-1/2/3AP-Chem-Lab	DSE-1/2/3AT-Math-A8 DSE-1/2/3AT-Zoo-Physiology Lab	DSE-1/2/3AT-Phys-Com. Room DSE-1/2/3AT-Bot-Lab	DSE-1/2/3AT-Phys-Lab DSE-1/2/3AT-Bot-Lab	DSE-1/2/3AT-Physio-Lab-PD DSE-1/2/3AT-Geo-Lab	SEC3T (Phys)-Lab SEC3T (Bot)-Lab SEC3T (Zoo)-Lab SEC3T (Math)-Dept SEC3T (Geo)-Lab SEC3T-(Chem)-Lab SEC3T- (Physio)-Lab-PD
Friday	I (H)		C2T (Phys)-Gen Lab C2T (Chem)-Phyc Lab C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-Lab	C1T (Phys)-Gen. Lab C1T (Chem)-Phyc Lab C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-Lab	GE1P (Chem)-Lab GE1P (Phys)-Electron. GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1P (Physio)-PD GE1T (Math)-Dept GE1T (Geo)-Lab	GE1P(Chem)-Lab GE1P (Phys)-Electron. GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1P (Physio)-Lab-PD		
	I (G)	DSC-1/2/3AP-Physio-Lab-SKK DSC-1/2/3AP-Geo-Lab	DSC-1/2/3AP-Physio-Lab-SKK DSC-1/2/3AP-Geo-Lab	DSC-1/2/3AT-Math-TR	DSC-1/2/3AP-Zoo-Lab	DSC-1/2/3AP-Zoo-Lab	DSC-1/2/3AP-Phys-Lab DSC-1/2/3AP-Bot-Lab	DSC-1/2/3AP-Phys-Lab DSC-1/2/3AP-Bot-Lab
	III (H)	Lab C6P (Chem)-Iorg Lab C6P (Bot)-L2 C6P (Zoo)-L2 C6P (Geo)-Lab	C6P (Phys)-Electric. Lab C6P (Chem)-Iorg L C6P (Bot)-L2 C6P (Zoo)-L2 C6P (Geo)-Lab C6T (Math)-F. Annex	SEC1T (Phys)-Gen. Lab SEC1T(Chem)-Org L SEC1T (Bot)-L2 SEC1T (Zoo)-L2 SEC1T (Math)-F. Anx SEC1T (Geo)-A7	C5T (Phys)-Dept. Annex C5T (Chem)-Iorg L C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-F. Anx C5T (Geo)-A7	GE3T (Phys)-Gen. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Iorg L GE3T (Geo)-Lab GE3T (Physio)-Lab-SKK	SEC1P (Chem)-Iorg L C5T (Math)-Dept	SEC1P (Chem)-Iorg L



	III (G)	DSC-1/2/3CP-Phys-Lab DSC-1/2/3CP-Bot4-Lab	DSC-1/2/3CP-Phys-Lab DSC-1/2/3CP-Bot-Lab	DSC-1/2/3CT-Math-Geo Annex DSC-1/2/3CP-Zoo-Annex Lab	DSC-1/2/3CP-Zoo-Lab	SEC1T (Phys)-Opt Lab SEC1T (Bot)-L3 SEC1T (Zoo)-CL1 SEC1T (Math)-Dept SEC1T (Geo)-F. anx SEC1T-(Chem)-Comp Lab SEC1T- (Physio)Lab-PD	DSC-1/2/3CP-Physio-Lab-PD DSC-1/2/3CP-Geo-Lab	DSC-1/2/3CP-Physio-Lab-PD DSC-1/2/3CP-Geo-Lab
	V (H)		C12T (Phys)-Dept. Annex C12T (Chem)-Com Lab C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-SH Anx C12T (Geo)-F5	C11T (Phys)-Dept. Annex C11T (Chem)-Com Lab C11T (Bot)-L3 C11T (Zoo)-CL1 C11T (Math)-S2 C11T (Geo)-SH Anx	DSE2T (Phys)-Electric. Lab DSE2T(Chem)-Org L DSE2T (Bot)-L3 DSE2T (Zoo)-CL1 DSE2T (Math)-Com Lab DSE2T (Geo)-SH. Anx	DSE2P(Chem)-Org L DSE2P (Bot)-L3 DSE2P (Zoo)-CL1 DSE2T (Geo)S5-	DSE2P(Chem)-Org L DSE2P (Bot)-L3 DSE2P (Zoo)-CL1 DSE2T (Geo)-Lab	
	V (G)	DSE-1/2/3AP-Phys-Lab DSE-1/2/3AP-Bot-Lab	DSE-1/2/3AP-Phys-Lab DSE-1/2/3AP-Bot-Lab	DSE-1/2/3AT-Math-A8 DSE1/2/3A1P-Zoo-Lab	DSE-1/2/3AP-Zoo-Lab	SEC3T (Phys)-S6 SEC3T (Bot)-Lab SEC3T (Zoo)-Lab SEC3T (Math)-A3 SEC3T (Geo)-Lab SEC3T-(Chem)-Lab SEC3T- (Physio)-Lab-SKK	DSE-1/2/3AP-Physio-Lab-SKK DSE1/2/3AP-Geo-Lab	DSE-1/2/3AP-Physio-Lab-SKK DSE1/2/3AP-Geo-Lab
Saturday	I (H)		C1P (Phys)-Com. Lab C1P (Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-Lab	C1P (Phys)-Com. Lab C1P (Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1 C2T (Math)-Dept	GE1T (Chem)- GE1T (Phys)-Gen. Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-Lab GE1T (Physio)-Lab-PD			
	I (G)	DSC-1/2/3AP-Zoo-Lab	DSC-1/2/3AP-Zoo-Lab	DSC-1/2/3AT-Phys-Lab DSC-1/2/3AT-Geo. Annex	DSC-1/2/3AT-Math-			

	III (H)	Electron. Lab C7PChem)- Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab C7T (Geo)-Lab	C7P (Phys)-Electron. Lab C7PChem)- Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab C7T (Geo)-F5	SEC1T (Phys)-Electron Lab SEC1T (Bot)-L2 SEC1T (Zoo)-L2 SEC1T (Math)-TR SEC1T (Geo)-S2	GE3T (Phys)-Electric. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Org L GE3T (Geo)-F. Anx GE3T (Physio)-Lab-SKK			
	III (G)	DSC-1/2/3CP-Zoo- Lab	DSC-1/2/3CP-Zoo- Lab	SEC1P (Phys)-Lab SEC1P (Bot)-Lab SEC1P (Zoo)-Lab SEC1P (Geo)-Lab SEC1P-(Chem)-Lab SEC1P- (Physio)-Lab- SKK	SEC1P (Phys)-Lab SEC1P (Bot)-Lab SEC1P (Zoo)-Lab SEC1P (Geo)-Lab SEC1P-(Chem)-Lab SEC1P- (Physio)-Lab- SKK			
	V (H)		Lab DSE1T(Chem)-Inorg. Lab DSE1T (Bot)-L3 DSE1T (Zoo)-CL1 DSE1T (Math)-F. Anx DSE1T (Geo)-A7	DSE2T (Phys)-Electric. Lab DSE1P(Chem)-Iorg L DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE2T (Math)-F. Anx DSE1P (Geo)-Lab	DSE1T (Phys)-Electron. Lab DSE1P(Chem)-Iorg Lab DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE1T (Math)-F3 DSE1P (Geo)-Lab			



Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Department of Bengali (UG)

Academic Session: 2020-21

Semester: ODD

Dr. Nilanjana Bhattacharyya (Associate Professor & Head)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-7-T	02	C-11-T	03	GE-1-T	02	DSE-2H	02	SEC-3-G	02	GE-1-G	02	X	X	13

Dr. Sadhan Chandra Pandit (Assistant Professor - Stage 3)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-1-T	02	C-7-T	03	C-12-T	02	DSE-1H	02	DSE-G	02	X	X	X	X	11

Dr. Dipak Shom (Assistant Professor - Stage 2)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-1-T	02	C-6-T	02	C-12-T	02	GE-1-T	02	DSE1H	02	SEC-1H	02	GE-1-G	02	14

Prof. Avijit chakraborty (Govt. approved Part time Teacher)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-2-T	02	C-6-T	02	C-11-T	02	DSC-1c	02	DSE-G	02	X	X	X	X	10

Prof. Madhumita Addhya (Guest Teacher)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-2-T	02	C-5-T	02	DSC-1a	02	GE-3-T	02	GE-1-G	02	X	X	X	X	10

Prof. Sanat Pan (Guest Teacher)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-1-T	02	C-5-T	02	GE-3-T	02	DSC-1a	02	SEC-1-G	02	DSE-1G	02	X	X	12



Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Department of Bengali (UG)														
Academic Session: 2020-21										Semester: ODD				
Prof. Dipashree Roy (Guest Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-5-T	02	C-12-T	02	DSC-1a	02	AECC-C	02	GE-3-T	02	DSC-1c	02	DSE-2H	02	14
Prof. Goutam Jana (Guest Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-2-T	02	C-6-T	02	C-11-T	02	GE-1-T	02	DSC-1c	02	DSE-1H	02	DSE-2H	02	14
Prof. N/A														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
Prof.N/A														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
Prof.....N/A														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
Prof.N/A														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes





Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Department of Bengali (PG)														
Academic Session: 2020-21										Semester: ODD				
Dr. Sadhan Chandra Pandit (Assistant Professor-Stage 3 & PG Co-Ordinator)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
103	03	104	02	301	02	303	02	304	01	X	X	X	X	10
Dr. Nilanjana Bhattacharyya (Associate Professor)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
102	01	104	02	105	02	301	02	302	02	304	01	X	X	10
Dr. Dipak Shom (Assistant Professor - Stage 2)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
102	01	103	02	105	02	302	02	303	02	304	01	X	X	10
Prof. Avijit Chakraborty (Govt. approved Part time Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
102	01	104	01	105	01	301	02	303	02	304	01	X	X	08
Prof. Madhumita Addhya (Guest Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
102	01	105	01	301	01	302	01	303	01	304	01	X	X	06
Prof. Sanat Pan (Guest Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
101	04	X	X	X	X	X	X	X	X	X	X	X	X	04





NARAJOLE RAJ COLLEGE

(NAAC Accredited 'B' Grade Govt.-Aided College)

NARAJOLE: PASCHIM MEDINIPUR: PIN-721211

Ph.: 9475429270 e-mail: narajolerajcollege@rediffmail.com

Name of the Department: Department of Bengali
Name of the Teacher: Dr. Nilanjana Bhattacharyya
Name and Distinctive Number of the Paper: Rabindra Sahitya Path -
Shyamali -BNG203

Session: 2020-21
Semester: II (PG)

Sample:

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
Lecture 01	রবীন্দ্রসাহিত্যপাঠ - শ্যামলী ,	ভূমিকা: রবীন্দ্র কাব্যধারার সাধারণ পরিচয়
Lecture 02	রবীন্দ্রনাথ ঠাকুর	“শ্যামলী” কাব্যগ্রন্থের সাধারণ পরিচয় ও রবীন্দ্রকাব্যধারায় তার বিশিষ্টতা
Lecture 03		কাব্যপাঠ ও বিশ্লেষণ - ১ অকাল ঘুম, অমৃত,আমি,কনি
Lecture 04		কাব্যপাঠ ও বিশ্লেষণ - ২ কালরাত্রি, চিরযাত্রী,তেঁতুলের ফুল,দুর্বোধ
Lecture 05		কাব্যপাঠ ও বিশ্লেষণ - ৩ দ্বৈত, প্রাণের রস,বঞ্চিত - অপর পক্ষ
Lecture 06		কাব্যপাঠ ও বিশ্লেষণ - ৪ বাঁশিওয়ালা, বিদায়বরণ
Lecture 07		কাব্যপাঠ ও বিশ্লেষণ - ৫ মিলভাঙা, শেষপহরে,শ্যামলী
Lecture 08		কাব্যপাঠ ও বিশ্লেষণ - ৬





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		সম্ভাষণ, স্বপ্ন, হঠাৎ দেখা, হারানো মন
Lecture 09		রসতাত্ত্বিক বিশ্লেষণ - ১ শ্যামলী কাব্যে বিধৃত মর্ত্যচেতনা
Lecture 10		রসতাত্ত্বিক বিশ্লেষণ - ২ শ্যামলী কাব্যে বিধৃত প্রেমচেতনা
Lecture 11		রসতাত্ত্বিক বিশ্লেষণ - ৩ শ্যামলী কাব্যের আখ্যানকবিতাগুলি সম্পর্কিত আলোচনা
Lecture 12		রসতাত্ত্বিক বিশ্লেষণ - ৪ শ্যামলী কাব্যে উৎসর্গ অংশে বর্ণিত কবিভাবনা, মূল কাব্যের সঙ্গে কতখানি সম্পৃক্ত
Lecture 13		রসতাত্ত্বিক বিশ্লেষণ - ৫ শ্যামলী কাব্যের নামকরণের সার্থকতা
Lecture 14		সম্ভাব্য প্রশ্নাবলীর আলোচনা
Lecture 15		পূর্বপাঠের পুনরালোচনা .

Instructions for preparation of 'Teaching Plan':

- Total Number of lectures should be about 75% of the actual classes during the last corresponding semester or anticipated classes during the stipulated time of the particular semester, whichever is less;
- The sample given above is only explanatory in nature;
- To start with, prepare Teaching Plan only for Core Course (Hons.) papers. Teaching Plan for other papers like GE Papers, DSC Papers, DSE Papers, AECC Papers would be done only after successful completion of the preparation of Teaching Plan for CC Papers.
- For any query feel free to call me. We need to develop one robust DCF and for that your valued suggestion would be a good input.



s/d Principal



NARAJOLE RAJ COLLEGE
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Name of the Department: Mathematics

Name of the Teacher: Dr. Akul Rana

Name and No. of the paper: (Calculus, Geometry & Differential Equation) C1T

Session: 2020-2021 (Jul. 20-Dec. 20)

Class: 1th Semester Mathematics Honours

Sr. No. of Lect.	Broad Topic in University Syllabus	To be discussed
1.	Differential Calculus	Introduction to higher order derivatives, Hyperbolic functions.
2.		Determination of higher order derivative of some well known function.
3.		Statement, proof and application of Leibnitz rule
4.		Problem Solving
5.		Tutorial
6.		concavity and inflection points, an introduction
7.		Problems on concavity and inflection points.
8.		Envelope, an introduction
9.		Problem Solving
10.		Tutorial
11.		Asymptote, an introduction
12.		Asymptote of Cartesian curve
13.		Asymptote of Polar Curve
14.		Problem Solving session
15.		L'Hospital's rule and its application
16.		Problem solving using L'Hospital's rule

17.		Curve tracing of Cartesian curve
18.		Tracing in polar coordinates of standard curves
19.	Integral Calculus	Reduction Formulae of some trigonometric functions
20.		Derivations and illustrations of reduction formulae of various type
21.		Problem solving
22.		Parametric equations, parameterizing a curve, arc length of a curve, arc length of parametric curves.
23.		Problem solving
24.		Area under a curve, area of surface of revolution
25.		Volume of surface of revolution
26.		Problems on area and volume of surface of revolution
27.		Techniques of sketching conics.
28.		Problem solving
29.		Differential Equation
30.	Solution of a Differential Equation, General, particular, explicit, implicit and singular solutions of a differential equation.	
31.	Separable equations and equations reducible to this form	
32.	Exact differential equations and integrating factors	
33.	Rules of finding integrating factor	
34.	Problem Solving Session	
35.	Linear equation and Bernoulli equations	
36.	Problem solving session	
37.	Special integrating factors and transformations.	
38.	Problem Solving	
39.	Tutorial	
40.	Tutorial	



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(NAAC Accredited B Grade Government Aided College)

NARAJOLE : PASCHIM MEDINIPUR: PIN-721211

Ph: 9475429270 email: narajolerajcollege@rediffmail.com

Name of the Department: Mathematics

Name of the Teacher: Dr. Akul Rana

Name and No. of the paper: (Numerical Methods Lab) C7P

Session: 2019-2020 (July. 20-Dec. 20)

Class: 3rd Semester Mathematics Honours

Lect. No.	Chapter/Unit in Syllabus	To be discussed
1.	Numerical Methods Lab using C language	Introduction to C programming
2.		Control Statement in C programming
3.		Program to calculate the sum $1/1 + 1/2 + 1/3 + 1/4 + \dots + 1/N$. Program for entering 100 integers into an array and sort them in an ascending order.
4.		Program for finding solution of transcendental and algebraic equations by Bisection method and Newton Raphson method.
5.		Program for finding solution of transcendental and algebraic equations by Secant method Regula Falsi method.
6.		Numerical Integration using Trapezoidal Rule and Simpson's one third rule
7.		Numerical Integration using Weddle's Rule and Gaussian Quadrature
8.		Solution of ordinary differential equations using Euler method And Modified Euler method
9.		Solution of ordinary differential equations using Runge Kutta method of 2nd order and 4th order
10.		Solution of system of linear equation using Gauss-Jacobi method .
11.		Solution of system of linear equation using Gauss-Seidel method
12.		Tutorial
13.		





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Name of the Department: Mathematics

Name of the Teacher: Dr. Akul Rana

Name and No. of the paper: (Logic and Sets) SEC1T

Session: 2019-2020 (July. 20-Dec. 20)

Class: 3rd Semester Mathematics Honours

Lect. No.	Chapter/Unit in Syllabus	To be discussed
1.	Logic and Sets	Introduction to Logic and Sets
2.		Propositions, truth table, negation
3.		Conjunction and disjunction. Implications, biconditional propositions
4.		Converse, contra positive and inverse propositions and precedence of logical operators.
5.		Propositional equivalence: Logical equivalences.
6.		Tutorial
7.		An introduction to Predicates and quantifiers.
8.		quantifiers, binding variables and negations.
9.		Tutorial
10.		Sets, subsets, set operations and the laws of set theory
11.		Venn diagrams. Examples of finite and infinite sets. Finite sets and counting principle.
12.		Tutorial
13.		Empty set, properties of empty set. Standard set operations.
14.		Classes of sets. Power set of a set.
15.		Difference and Symmetric difference of two sets. Set identities.
16.		Product Set, Relation: Product set. Composition of relations

17.		Types of relations
18.		Partitions, Theorems on relations
19.		Equivalence Relations with example of congruence modulo relation.
20.		Partial ordering relations, n- ary relations.
21.		Tutorial


 15/07/2024
 Department of Mathematics
 Faculty of Science
 University of Lagos





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Ph: 9475429270 email: narajolerajcollege@rediffmail.com

Name of the Department: Mathematics

Name of the Teacher: Dr. Akul Rana

Name and No. of the paper: (Linear Programming Problem) DSE1T

Session: 2019-2020 (July 20-Dec. 20)

Class: 5th Semester Mathematics Honours

Lect. No.	Chapter/Unit in Syllabus	To be discussed
1.	LPP	What and why LPP? Introduction to LPP
2.		Standard form of LPP
3.		Convex Set and related theorems
4.		Basic Solution of LPP
5.		Basic Feasible Solution and Optimal Solution
6.		The inverse LT of some simple functions
7.		Properties of Simplex Method: Reduction of a FS to BFS
8.		Fundamental theorem of LPP
9.		Solution of LPP: Graphical Method
10.		Simplex Method
11.		Problem based on Simplex methods
12.		Artificial variables and two phase method
13.		Problems based on Two phase method
14.		Big M method
15.		Problems on Big M method
16.		When a LPP has Unbounded solution and no solution?
17.		Duality, formulation of the dual problem

18.		Primal-dual relationships and economic interpretation of the dual.
19.		Solution of the primal problem solving the Dual
20.		Tutorial
21.		Tutorial
22.		Tutorial
23.		Class Test
24.	Transportation Problem	Transportation problem and its mathematical formulation
25.		Northwest-corner method
26.		Least cost method and Vogel approximation method for determination of starting basic solution.
27.		Optimality test of basic solution
28.		solving transportation problem
29.		Problem solving
30.		Tutorial
31.	Assignment method	Assignment problem and its mathematical formulation,
32.		Hungarian method for solving assignment problem
33.		Problem Solving
34.		Problem solving
35.		Tutorial
36.	Game Theory	Game theory: formulation of two person zero sum games.
37.		Solving two person zero sum games.
38.		Games with mixed strategies
39.		Graphical solution procedure
40.		Linearprogramming solutionof games.
41.		Problem Solving
42.		Tutorial

43.		Interactive Session
44.		Interactive Session
45.		Interactive Session

15/11/2022
Approved
Parvathi K. S. Pillai
Principal
K. J. Somaiya Institute of Technology
Warananagar, Bangalore - 560075





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(NAAC Accredited 'B' Grade)

NARAJOLE:: PASCHIM MEDINIPUR :: WEST BENGAL

Pin-721211 E-mail: narajoleracollege@rediffmail.com



Teaching Plan

Name of the Department: *History*

Name of the Teacher: *Dr. Mangal Kumar Nayak, Assistant Professor*

Name of the Distinctive Number of the Paper: *CC- III (Mauryan and Gupta Empire)*

Session: *2020-2021*

Semester: *II*

Sr. No of Lecturer	Broad Topic in University Syllabus	Topic to be covered in the Lecturer
Lecture 01	<i>III. Post Mauryan Empire</i>	Literary & Archaeological Source for reconstructing history after the Post Mauryan Ages
Lecture 02		Political Condition of North India after the fall of the Mauryan Empire
Lecture 03		Political Condition of South India after the fall of the Mauryan Empire
Lecture 04		Socio Life of the post Mauryan period
Lecture 05		Economic Situation of after Mauryan empire
Lecture 06		Feudalism system after Mauryan
Lecture 07		Review the History of Bengal from the end of Mauryan Empire
Lecture 08		Frontier policy of after Mauryan
Lecture 09		Political & Cultural contribution of Mauryan
Lecture 10		Growth of Regional power after Mauryan
Lecture 11	<i>Sungas Dynasty</i>	Political History of Sungas Dynasty
Lecture 12	<i>Kanvas Dynasty</i>	Political History of Kanvas Dynasty
Lecture 13	<i>Indo- Greeks</i>	Political History of Indo Greeks
Lecture 14		Bactrian campaign
Lecture 15		Political History of Bactrian
Lecture 16		Shak & Bactrian Administration
Lecture 17		Socio - Cultural History of Indo-Bactrian Ages.
Lecture 18	<i>History of Kushanas</i>	Genesis of Kshanas History: Literary & Archaeological Source
Lecture 19		Socio - political Background of Kushanas
Lecture 20		Political History of Kushanas Dynasty
Lecture 21		History of Kaniska period
Lecture 22		History of Kaniska period
Lecture 23		Administrative structure of Kushanas period
Lecture 24		Cultural History of Kushanas times
Lecture 25		Economic activities of Kushans Ages
Lecture 26		History of Art & Craft of Kushanas
Lecture 28		Downfall of Kushanas
Lecture 29		Historical Importance of Kushanas period
Lecture 30		<i>Satavahanas Period</i>
Lecture 31	Political Situation of North India after the Mauryan Ages	
Lecture 32	Political History of Satavahanas Dynasty	



Lecture 33		Political History of Goutami Putra Satkorni
Lecture 34		Administrative structure of Satavahanas
Lecture 35		Socio- Cultural History of Satavahanas
Lecture 36		Religious life of Satavahanas times
Lecture 37		Economic activities of Satavahanas Ages
Lecture 38		Rome Indian Trade route
Lecture 39		General review of science and technology
Lecture 40	<i>Satavahanas Period</i>	Downfall of Satavahanas

Semester II

Paper: CC IV(Political History of Early Medieval India (600AD to 1200AD))

Sr. No of Lecturer	Broad Topic in University Syllabus	Topic to be covered in the Lecturer
Lecture 01	Unit I, Module I: Understanding the Early medieval phase in the Indian History: 1. Different perceptions on the early medieval situations 2. Literary and Archaeological sources	Literary & Archaeological Source for reconstructing history of early medieval situations
Lecture 02		Literary & Archaeological Source for reconstructing history of early medieval situations
Lecture 03		Literary & Archaeological Source for reconstructing history of early medieval situations
Lecture 04		Socio & Cultural Life of early medieval times
Lecture 05		Economic Situation of early medieval times
Lecture 06		Political Situation of early medieval times in India
Lecture 07		Political Situation of early medieval times in outside India
Lecture 08		Feudal system of Early medieval India
Lecture 09		Regional situation of early medieval period
Lecture 10		Regional situation of early medieval period
Lecture 11		Political History of Chauhanas Dynasty
Lecture 12		Political History of Prithviraja Chauhanas
Lecture 13		Invasions of MD. Muhammad Ghori
Lecture 14		Battle of Tarain Ist. 1191 & Second 1192AD
Lecture 15		Significance the Battle of Tarain
Lecture 16		The Paramaras of Malwa Dynasty
Lecture 17		Other Dynasties of this era.
Lecture 18	3. Development of Regional Culture: an overview	Cultural activities of early medieval period
Lecture 19		History of Science and Technology of this time
Lecture 20		History of Art and Craft.
Lecture 21	Unit 2, 1.2 Emergence of Feudal Polity: Nature and Structure of Indian Feudalism	feudalism: Historical background
Lecture 22		Feudalism: Indian context
Lecture 23		Indian Feudalism : Historical Debate
Lecture 24		Nature and Structure of Indian feudalism
Lecture 25		Feudalism: Historical Significance
Lecture 26	Unit 2, 1. Zenith of Political Feudalism: 1000 to 1200CE	Growth of Regional power: North & Eastern India
Lecture 28		Administrative structure: Central and Regional Area
Lecture 29		Historical Importance of Regional Dynasty
Lecture 30	Unit 2, 1.4. The concept of segmentary state and the Indian experience	Political Situation of North India after the Mauryan Ages
Lecture 31		Political History of Satavahanas Dynasty
Lecture 32		Political History of Goutami Putra Satkorni
Lecture 33		Administrative structure of Satavahanas
Lecture 34		Socio- Cultural History of Satavahanas
Lecture 35		Religious life of Satavahanas times
Lecture 36		Economic activities of Satavahanas Ages

Lecture 37		Rome Indian Trade route
Lecture 38		Downfall of Satavahanas

Semester IV
Paper: CC VIII (Renaissance and Reformation)

Sr. No of Lecturer	Broad Topic in University Syllabus	Topic to be covered in the Lecturer
Lecture 01	<i>Reformation in the National context</i>	Source: Reconstructing history of 15 th & 16 th Century reformation movement
Lecture 02		15 th & 16 th Century reformation movement: International & National background
Lecture 03	<i>France Reformation Movement</i>	Reformation movement in France : Background
Lecture 04		Socio & economic impact of after reformation
Lecture 05		Art & Cultural Situation of after reformation
Lecture 06	<i>Switzerland Reformation Movement</i>	Reformation movement in Switzerland : background
Lecture 07		15 th & 16 th Century reformation movement: Switzerland
Lecture 08		Socio & economic impact of after reformation
Lecture 09		Art & Cultural impact of after reformation
Lecture 10	<i>England Reformation Movement: Nature and Distinctiveness</i>	English reformation movement : background
Lecture 11		Political impact of English reformation movement
Lecture 12		Socio & economic impact of after reformation in England
Lecture 13		Art & Cultural impact of after reformation
Lecture 14		Nature and Distinctiveness of English Reformation
Lecture 15		Radical Reformation movement in England
Lecture 16		Anabaptists movement in England
Lecture 17		Counter reformation movement in England
Lecture 18	<i>Reformation movement in outside Europe</i>	Reformation Movement in outside Europe
Lecture 19		Social & cultural life in Europe after reformation
Lecture 20		Reformation and Humanism
Lecture 21	<i>Renaissance and Science and the emergence of secular culture</i>	15 th Century Renaissance: Historical background
Lecture 22		Renaissance and Scientific thought
Lecture 23		15 th Century Scientific Revolution in Europe
Lecture 24		Print Revolution
Lecture 25		Agriculture Revolution
Lecture 26		Scientific Revolution
Lecture 28		Military Revolution
Lecture 29		Industrial Revolution
Lecture 30		Short history of Scientist
Lecture 31		Short history of Scientist
Lecture 32		Concept of Secularism
Lecture 33		Secular Culture and Human Life
Lecture 34		Secular Culture and Human Life
Lecture 35		Scientific mind and outlooks





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NARAJOLE: PASCHIM MEDINIPUR: PIN-721211

Ph.: 9475429270 e-mail: narajolerajcollege@rediffmail.com

Name of the Department: Department of Physics

Name of the Teacher: Dr. Tapanendu Kamilya

Name and Distinctive Number of the Paper: Nanomaterials and Application DSE-3T

Session: 2020-21

Semester: VI

Sample:

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
Lecture 01	Nanoscale Systems (Sub Topic: General Idea of Nanoscale Materials)	Introduction
		Discussion about different Length Scale in Physics.
		Idea about 1D, 2D and 3D nanostructures (Nanodots, Thin Film, Nanowires and Nanorods).
Lecture 02		Idea and Discussion about Band Structure of Nanomaterials.
		Calculation of Density of States of Materials at Nanoscale.
		Concept of Size Effects in Nanosystems.
Lecture 03	Nanoscale Systems (Sub Topic: Quantum Confinement)	Concept of Quantum Confinement.
Lecture 04		Recapitulation of Schrödinger Equation.
Lecture 05		Derivation of Schrödinger Equation for Infinite Square Well Potential.
		Calculation of Schrödinger Equation for Infinite Square Well Potential.
Lecture 06		Derivation of Schrödinger Equation for Step Potential.





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		Calculation of Schrödinger Equation for Infinite Square Well Potential.
Lecture 07		Derivation of Schrödinger Equation for Potential Box.
		Calculation of Schrödinger Equation for Potential Box.
Lecture 08		Discussion about Confinement of Carriers in 3D, 2D, 1D Nanostructures.
		Consequences of Confinement of Carriers in 3D, 2D, 1D Nanostructures.
Lecture 09	<p style="color: magenta; text-align: center;">Synthesis of Nanostructure Materials</p> <p style="color: green; text-align: center;"><i>(Sub Topic: Different Experimental Techniques of Synthesis)</i></p>	Basic Idea about Top Down and Bottom Up Approach for Synthesis of Nanoscale Materials.
Lecture 10		Photolithography-Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Ball Milling -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 11		Gas Phase Condensation-Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Vacuum Deposition -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.





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Lecture 12		Physical Vapour Deposition - Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Thermal Evaporation -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 13		E-Beam Evaporation -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Pulsed Laser Deposition - Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 14		Chemical Vapour Deposition - Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Sol Gel Technique -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 15		Electro Deposition -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Spray Pyrolysis -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.

15/07/24
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Lecture 16		Hydrothermal Synthesis - Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Colloidal Method -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 17		Molecular Beam Epitaxy (MBE) - Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 18	Characterization of Nanostructures (XRD Analysis)	X-Ray Diffraction -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 19		Analysis of XRD Peaks from Machine Data and Calculation of Miller Indices and Planes from XRD Machine Data. Numerical.
Lecture 20	Characterization of Nanostructures (Optical Spectroscopy)	Optical Spectroscopy -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Analysis of UV-vis spectral Machine Data, Plot of Curve and Calculation of Band Gap, SPR, etc. Numerical.
Lecture 21	Characterization of Nanostructures (Scanning Electron Microscopy)	Scanning Electron Microscopy (SEM) -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.



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		Analysis of SEM Images, EDAX Analysis, etc.
Lecture 22	Characterization of Nanostructures (Transmission Electron Microscopy)	Transmission Electron Microscopy (TEM) -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
Lecture 23		Analysis of TEM Images, EDAX and SAED Analysis, Analysis of Fringe and Calculation of Crystal Plane etc.
Lecture 24	Characterization of Nanostructures (Atomic Force Microscopy)	Atomic Force Microscopy (AFM) - Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Analysis of AFM Images
Lecture 25	Characterization of Nanostructures (Scanning Tunnelling Microscopy)	Scanning Tunnelling Microscopy (STM) -Definition, Experimental Design, Diagram, Working Procedure, Discussion, Applications, Advantages and Limitations.
		Analysis of STM Images
Lecture 26	Summary & Discussion about Questions	Summary and Discussion about Miscellaneous Questions.

Instructions for preparation of 'Teaching Plan':

- Total Number of lectures should be about 75% of the actual classes during the last corresponding semester or anticipated classes during the stipulated time of the particular semester, whichever is less;
- The sample given above is only explanatory in nature;
- To start with, prepare Teaching Plan only for Core Course (Hons.) papers. Teaching Plan for other papers like GE Papers, DSC Papers, DSE Papers, AECC Papers would be done only after successful completion of the preparation of Teaching Plan for CC Papers.
- For any query feel free to call me. We need to develop one robust DCF and for that your valued suggestion would be a good input.

s/d Principal





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NOTICE

14.02.2021

Attn All HoDs: Internal Assessment Test Regarding
You are requested to note the followings:

- (1) Answer Booklet (first page) and Answer Booklet (additional page) are to be shared in concerned students' group immediately so that they can have print out of these well before;
- (2) Students are to given specific instruction to the effect that for all the papers they are to use the first page of the Answer Booklet compulsory. They may use one or two of the additional page of the Answer Booklet;
- (3) DCF for Question Paper is to be used for preparation of question papers. Question paper will be accepted **ONLY IN THE GIVEN DCF AND NOT IN ANY OTHER FORMAT**;
- (4) Specific instructions regarding schedule and modalities of internal assessment will be given by me in due course of time.



Anupam Parua

Dr. Anupam Parua
Principal
Narajole Raj College

Principal
Narajole Raj College
Narajole-721211





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NOTICE

20.02.2021

All the teachers are requested to note the followings:

(1) Internal Assessment will be held as per the schedule already circulated (through posting in College web-site and through HoDs);


(2) For smooth conduct of the internal assessment NO ROSTER DUTY WILL BE FOLLOWED FOR THE COMING WEEK. ALL THE TEACHERS ARE TO MAKE THEMSELVES AVAILABLE FOR ALL WORKING DAYS (excepting for medical emergency of self or of any family members, pre-approved leave, election duty or other unforeseen contingencies);

(3) HoDs are to shoulder the responsibility of posting question papers in concerned students' WhatsApp group in scheduled time;

(4) Written answer scripts will be received in hard copies in the College. For this separate rooms will be provided for each department. Collection of the scripts will be joint responsibility of all the members of the Department. Allocation of rooms for the said purpose will be notified soon;

(5) Students are to write their class roll number in their answer scripts.




Dr. Anupam Parua
Principal
Narajole Raj College

Principal
Narajole Raj College
Narajole-721211





Narajole Raj College

ESTD.-1966

(NAAC Accredited B Grade Govt. Aided College affillated to Vidyasagar University)

Narajole, Paschim Medinipur-721211

Phone: 9635665468, Email: narajolerajcollege@rediffmail.com



Academic Committee

Date-09/04/2022

Notice

Notice is hereby given that a meeting of the Academic Committee will be held on 12.04.2022 at 11:30 am. In the Chamber of the Vice-Principal to get together of the Vice-Principal and the members of the academic -Committee.

Rahma
Dr. Ranajit Kumar Khalua

Chairman
Vice-Principal
Narajole Raj College
P.O.- Narajole
Dist.- Paschim Medinipur, 721211

Nilanjana Bhattacharya
Rajasree Debnath

Members:

- (1) Dr. Nilanjana Bhattacharya (HOD-Bengali)
- (2) Dr. Rajasree Debnath (HOD-Political Science)
- (3) Prof. Soma Debray (HOD - English)
- (4) Dr. Uttam Kumar Kanp (HOD-Botany) *Uttam Kumar Kanp*
- (5) Dr. Tapamendu Kamilya (HOD-Physics) *Tapamendu Kamilya*
- (6) Prof. Anustup Chattopadhyaya (HOD-Sanskrit) *Anustup Chattopadhyaya*
- (7) Prof. Barun Kumar Mondal (HOD-Chemistry) *Barun Kumar Mondal*
- (8) Prof. Baisali Guha (HOD, History) *Baisali Guha*
- (9) Prof. Subhasis Das (HOD-Geography)
- (10) Dr. Poulami Adhikary Mukherjee (HOD - Zoology) *Poulami Adhikary Mukherjee*
- (11) Dr. Tanuka Acharya (HOD-Philosophy) *Tanuka Acharya*
- (12) Dr. Akul Rana (HOD -Mathematics) *Akul Rana*
- (13) Dr. Parimal Dua (HOD, Physiology)
- (14) Prof. Mosibul Ali (HOD, Education)
- (15) Dr. Atanu Nanda (HOD, Physical Education) *Atanu Nanda*
- (16) Dr. Dipak Shom (TCS & Convener, Academic Committee) *Dipak Shom*
- (17) Prof. Barun Rout (Convener, Technology Committee)
- (18) Dr. Sk. Mohammad Aziz (Convener, Technology Committee)
- (19) Prof. Pragya Paramita Mondal (Coordinator, IQAC) *Pragya Paramita Mondal*



A.A. 410
09/04/2022
Principal
Narajole Raj College
Narajole, Pin-721211



মিটিং রেজল্যুশন বই

MEETING RESOLUTION BOOK

মিটিং নং / Meeting No.	
তারিখ / Date	12/04/2022

উপস্থিত সভাগণের নাম
NAME OF MEMBERS PRESENT

স্থান / Place	
সময় / Time	11:30 A.M.

- ১। 1. Ranajit Kr. Khalua.
- ২। 2. Dipak Ghose.
- ৩। 3. Nilayeen Bhattacharya.
- ৪। 4. A. Chatterjee.
- ৫। 5. Subhasis Das.
- ৬। 6. Uttam Kumar Das.
- ৭। 7. Deban Kumar Mandal.

- ৮। 8. Dr. Masud Ali.
- ৯। 9. Rajibree Debnot.
- ১০। 10. Tanjima Akter.
- ১১। 11. Tapaswita Kundu.
- ১২। 12. Bousali Gaha.
- ১৩। 13. Tanuza Akter.
- ১৪। 14. Atanu Kanda.
- ১৫। 15. Arminul Haque.
- ১৬। 16.
- ১৭। 17.
- ১৮। 18.
- ১৯। 19.
- ২০। 20.
- ২১। 21.

রেজল্যুশন / Resolution Adopted



Proceedings of the meeting of the Academic Committee held on 12/4/2022 at 11.30 AM.

Venue: Chamber of the Vice-Principal

Meeting No - 6

Academic Session 2021-2022

The meeting was chaired by Dr. Ranajit Kumar Khalua, the Vice-Principal of the College and the Chairman of the Academic Committee. Detailed discussing took place about the application of the Students and the following resolutions were adopted.

It was the first meeting of the vice-Principal with academic committee as he handed the charge on & from 23/03/2022 from the Principal Dr. Anupam Parua. So all member expressed their gratitude to the vice-Principal.

As per application of the students to postponed the internal Assessment on 13/04/2022, due to Chaitra Sankranti, the Committee unanimously decided that the internal Assessment will be held on 18/01/2022.

As it was a get together meeting, so the meeting ended with reciprocal vote of thanks to and from the chair.

Ranajit
Dr. Ranajit Kumar Khalua
(Chairman)
Vice-Principal
Narajole Raj College
P.O.- Narajole
Dist.- Paschim Medinipur, 721211

A.A. 410
12/04/2022
Principal
Narajole Raj College
Narajole Ph-721211





NARAJOLE RAJ COLLEGE
(NAAC Accredited B Grade Govt. - Aided College)
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211

Academic Committee

Notice

Dated: 28.04.2022

Notice is hereby given that a meeting of the Academic Committee will be held on 29.04.2022 at 3:00 p.m. to discuss the following agenda. Please make it convenient to attend the meeting.

Agenda:

1. Syllabus completion and academic activity management in May - June 2022
2. Implementation of resolutions adopted in the last meeting of the IQAC
3. Miscellaneous, if any, with the permission of the Chair

Phalua
Signature of the Vice Principal
Dr. Nilanjana Bhattacharya
Narajole Raj College
P.O. - Narajole
Dist. Paschim Medinipur 721211

Members:

- (1) Dr. Nilanjana Bhattacharya (HOD - Bengali) *Nilanjana Bhattacharya*
- (2) Dr. Rajasree Debnath (HOD - Political Science) *Rajasree Debnath*
- (3) Prof. Soma Debray (HOD - English) *Soma Debray*
- (4) Dr. Uttam Kumar Kanp (HOD - Botany) *Uttam Kanp*
- (5) Dr. Tapanendu Kamilya (HOD - Physics) *Tapanendu Kamilya*
- (6) Prof. Anustup Chattopadhyaya (HOD - Sanskrit) *Anustup*
- (7) Prof. Barun Kumar Mondal (HOD - Chemistry) *Barun Kumar Mondal*
- (8) Prof. Baisali Guha (HOD, History) *Baisali Guha*
- (9) Prof. Subhasis Das (HOD - Geography) *Subhasis Das*
- (10) Dr. Poulami Adhikary Mukherjee (HOD - Zoology) *Poulami Adhikary*
- (11) Dr. Tanuka Acharya (HOD - Philosophy) *Tanuka Acharya*
- (12) Dr. Akul Rana (HOD - Mathematics) *Akul Rana*
- (13) Dr. Parimal Dua (HOD, Physiology) *Parimal Dua*
- (14) Prof. Mosibul Ali (HOD, Education)
- (15) Dr. Atanu Nanda (HOD, Physical Education) *Atanu Nanda*
- (16) Dr. Dipak Shom (TCS & Convener, Academic Committee) *Dipak Shom*
- (17) Prof. Barun Rout (Convener, Technology Committee) *Barun Rout*
- (18) Dr. Sk. Mohammad Aziz (Convener, Technology Committee) *Sk. Mohammad Aziz*
- (19) Prof. Pragna Paramita Mondal (Coordinator, IQAC) *Pragna Paramita Mondal 29.04.22*

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Day	Semester	10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00
Monday	I (H)		C1T (Phys)-Gen Lab C1T (Chem)-Org L C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-A7	C2T (Phys)-Gen Lab C2T (Chem)-Org L C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-A7	GEIT (Chem)- GEIT (Phys)-Gen Lab GEIT (Bot)-L1 GEIT (Zoo)-L1 GEIT (Math)-Comp. Lab GEIT (Geo)-Lab GEIT (Physio)-Lab- SKK
	I (G)	DSC-1/2/3AT- Chem- Org Lab	DSC-1/2/3AT-Chem-TR	DSC-1/2/3A-Zoo- Tech. Room	DSC-1/2/3AT-Physio- Lab1-SKK DSC-1/2/3AT-Geo-TR
	III (H)	C5P (Phys)-Com Lab C5P (Chem)-Phyc L C5P (Bot)-L1 C5P (Zoo)-L1	C5P (Phys)-Com Lab C5P (Chem)-Phyc Lab C5P (Bot)-L2 C5P (Zoo)-L2 C5T (Math)-TR C5T (Geo)-A8	C5T (Phys)-Dept. Annex C5T (Chem)-Com Lab C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-TR C5T (Geo)-SH Annex	C6T (Phys)-Dept. Annex C6T (Chem)-Org L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-Dept C6T (Geo)-F5
	III (G)	DSC-1/2/3CT- Phys-Elec. Lab DSC-1/2/3CT-Bot- L3	DSC-1/2/3CT-Chem-Geo Annex	DSC-1/2/3CT-Math- Geo Annex DSC-1/2/3CT-Zoo- Annex Lab	DSC-1/2/3CT-Physio- Lab2-SKK DSC-1/2/3CT-Geo-Geo Annex-



	V (H)		DSE1T (Phys)-Electri. Lab DSE1P(Chem)-Iorg Lab DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE1T (Math)-F5 DSE1P (Geo)-Lab	DSE2T (Phys)-Electri. Lab DSE1P(Chem)-Iorg Lab DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE2T (Math)-G6 DSE1P (Geo)-Lab	C12T (Phys)-Electri. Lab C12T (Chem)-Iorg L C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-F. Annex C12T (Geo)-A7
	V (G)	DSE-1/2/3AT-Phys-Elec. Lab DSE-1/2/3AT-Bot-A4	DSE-1/2/3AT-Chem-Physics Annex	DSE-1/2/3AT-Zoo-Physio. L	DSE-1/2/3AT-Physio-SKK DSE-1/2/3AT-Geo-A8
Tuesday	I (H)		C2T (Phys)-Gen Lab C2T (Chem)-Org L C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-Lab	C1T (Phys)-Gen Lab C1T (Chem)-Org L C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-Lab	GE1P (Chem)-GE1P (Phys)-Electron. Lab GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-Lab GE1P (Physio)-Lab-SKK
	I (G)	DSC-1/2/3AT-Phys-Gen Lab DSC-1/2/3AT-Bot-L2	DSC-1/2/3AT-Phys-Elec. Lab DSC-1/2/3AT-Bot-SH Annex	DSC-1/2/3AT-Math-TR DSC-1/2/3AT-Zoo-TR	DSC-1/2/3AP-Chem-Lab

	III (H)		C5T (Phys)-Dept. Annex C5T (Chem)-Iorg L C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-F. Annex C5T (Geo)-A7	C6T (Phys)-Dept. Annex C6T (Chem)-Iorg L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-F. Annex C6T (Geo)-A7	C7T (Phys)-Dept. Annex C7T (Chem)-Org L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-F. Annex C7T (Geo)-A7
	III (G)	DSC-1/2/3CT-Chem-ILab	DSC-1/2/3CT-Phys-Opt. Lab DSC-1/2/3CT-Bot-A4	DSC-1/2/3CT-Math-Geo Annex DSC-1/2/3CT-Zoo-Annex Lab	DSC-1/2/3CP-Chem Lab
	V (H)		C11T (Phys)-Electric. Lab C11T (Chem)-Com. Lab C11T (Bot)-L3 C11T (Zoo)-CL1 C11T (Math)-F5 C11T (Geo)-S2	C12T (Phys)-Electric. Lab C12T (Chem)-Com. Lab C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-S4 C12T (Geo)-A4	DSE2T (Phys)-Electric. Lab DSE2T (Chem)-Iorg L DSE2T (Bot)-L3 DSE2T (Zoo)-CL1 DSE2T (Math)-Comp. Lab DSE2T (Geo)-SH Annex
	V (G)	DSE-1/2/3AT-Chem-S2	DSE-1/2/3AT-Phys-Opt. Lab DSE-1/2/3AT-Bot-TR	DSE-1/2/3AT-Math-A8 DSE-1/2/3AT-Zoo-A6	DSE-1/2/3AP-Chem-Lab
Wednesday	I (H)		C1T (Phys)-Gen Lab C1T (Chem)-Org L C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-F5 C1T (Geo)-Lab	C2T (Phys)-Gen Lab C2T (Chem)-Org L C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-Lab	GE1T (Chem)- GE1T (Phys)-Gen Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-A7 GE1T (Physio)-Lab-PD

	I (G)	DSC-1/2/3AT-Math-Dept DSC-1/2/3AT-Zoo-L1	DSC-1/2/3AT-Physio-Lab1-PD DSC-1/2/3AT-Geo-Tech. Room-	DSC-1/2/3AT-Chem-TR	DSC-1/2/3AP-Physio-Lab1-PD DSC-1/2/3AP-Geo-Lab
	III (H)		C5T (Phys)-Dept. Annex C5T (Chem)-Iorg L C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-Dept C5T (Geo)-A7	C6T (Phys)-Dept. Annex C6T (Chem)-Iorg L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-F. Annex C6T (Geo)-A7	C7T (Phys)-Dept. Annex C7T (Chem)-Iorg L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-TR C7T (Geo)-A7
	III (G)	DSC-1/2/3CT-Math-F. Annex DSC-1/2/3CT-Zoo-L2	DSC-1/2/3CT-Physio-Lab2-PD DSC1/2/3CT-Geo-Geo Annex-	DSC-1/2/3CT-Phys-Electron. lab DSC-1/2/3CT-Bot-Geo Annex	DSC-1/2/3CT-Chem-Tech Room
	V (H)	DSE2P(Chem)-Org L DSE2P (Bot)-L3 DSE2P (Zoo)-L3 DSE2T (Geo)-Lab	DSE2P(Chem)-Org. Lab DSE2P (Bot)-L3 DSE2P (Zoo)-L3 DSE2T (Geo)-F. Annex	C11T (Phys)-Electric. Lab C11T (Chem)-Com. Lab C11T (Bot)-L3 C11T (Zoo)-L3 C11T (Math)-S1 C11T (Geo)-A8	DSE1T (Phys)-Electric. Lab DSE1T(Chem)-Org L DSE1T (Bot)-L3 DSE1T (Zoo)-L3 DSE1T (Math)-F Annex DSE1T (Geo)-Comp. Lab



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	V (G)	DSE-1/2/3AT-Math-	DSE-1/2/3AT-Physio- Comp Lab-SKK DSE-1/2/3AT-Geo-Lab-	DSE-1/2/3AT-Chem- Teac. R	DSE-1/2/3AT-Chem- Phyc Lab
Thursday	I (H)		C2P (Phys)-Gen Lab C2P (Chem)-Phyc Lab C2P (Bot)-L1 C2P (Zoo)-L1 C2P (Geo)-Lab C2T (Math)-Dept	C2P (Phys)-Gen Lab C2P (Chem)-Phyc Lab C2P (Bot)-L1 C2P (Zoo)-L1 C2P (Geo)-Lab C1T (Math)-Dept	GE1T (Chem)- GE1T (Phys)-Gen Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-A8 GE1T (Physio)-Lab-PD
	I (G)	DSC-1/2/3AP- Chem-Lab	DSC-1/2/3AP-Chem-Lab	DSC-1/2/3AT-Math- Geo Annex DSC-1/2/3AT-Zoo- Annex lab	DSC-1/2/3AT-Chem- TR-
	III (H)		C5P (Phys)-Com. Lab C5P (Chem)-Phy L C5P (Bot)-L2 C5P (Zoo)-L2 C6T (Math)-Dept	C5P (Phys)-Com. Lab C5P (Chem)-Phy Lab C5P (Bot)-L2 C5P (Zoo)-L2 C5T (Math)-F. Anx C5T (Geo)-A7	C6T (Phys)-Dept. Annex C6T (Chem)-Iorg L C6T (Bot)-L2 C6T (Zoo)-L2 C6T (Math)-F. Anx C6T (Geo)-A7



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	III (G)	DSC-1/2/3CP- Chem-lab	DSC-1/2/3CP-Chem-Lab	DSC-1/2/3CT-Math- TR DSC-1/2/3CT-Zoo-TR	DSC-1/2/3CT-Physio- Lab-PD DSC-1/2/3CT-Geo-Lab-
	V (H)		C11T (Phys)-Electric. Lab C11T (Chem)-Org Lab C11T (Bot)-L3 C11T (Zoo)-CL1 C11T (Math)-F. Anx C11T (Geo)-SH Anx	C12T (Phys)-Electric. Lab C12T (Chem)-Physical Lab C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-G7 C12T (Geo)-SH Anx	DSE1T (Phys)-Electric. Lab DSE1T(Chem)-Org L DSE1T (Bot)-L3 DSE1T (Zoo)-CL1 DSE1T (Math)-Com lab DSE1T (Geo)-A4
	V (G)	DSE-1/2/3AP- Chem-Lab	DSE-1/2/3AP-Chem-Lab	DSE-1/2/3AT-Math- A8 DSE-1/2/3AT-Zoo- Physiology Lab	DSE-1/2/3AT-Phys- Com. Room DSE-1/2/3AT-Bot-Lab


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Friday	I (H)		C2T (Phys)-Gen Lab C2T (Chem)-Phyc Lab C2T (Bot)-L1 C2T (Zoo)-L1 C2T (Math)-Dept C2T (Geo)-Lab	C1T (Phys)-Gen. Lab C1T (Chem)-Phyc Lab C1T (Bot)-L1 C1T (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-Lab	GE1P (Chem)- GE1P (Phys)-Electron. Lab GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1P (Physio)-PD GE1T (Math)-Dept GE1T (Geo)-Lab
	I (G)	DSC-1/2/3AP- Physio-Lab-SKK DSC-1/2/3AP-Geo- Lab	DSC-1/2/3AP-Physio- Lab-SKK DSC-1/2/3AP-Geo-Lab	DSC-1/2/3AT-Math- TR	DSC-1/2/3AP-Zoo-Lab
	III (H)	C6P (Phys)- Electric. Lab C6P (Chem)-Iorg Lab C6P (Bot)-L2 C6P (Zoo)-L2 C6P (Geo)-Lab	C6P (Phys)-Electric. Lab C6P (Chem)-Iorg L C6P (Bot)-L2 C6P (Zoo)-L2 C6P (Geo)-Lab C6T (Math)-F. Annex	SEC1T (Phys)-Gen. Lab SEC1T(Chem)-Org L SEC1T (Bot)-L2 SEC1T (Zoo)-L2 SEC1T (Math)-F. Anx SEC1T (Geo)-A7	C5T (Phys)-Dept. Annex C5T (Chem)-Iorg L C5T (Bot)-L2 C5T (Zoo)-L2 C5T (Math)-F. Anx C5T (Geo)-A7
	III (G)	DSC-1/2/3CP- Phys-Lab DSC-1/2/3CP-Bot4- Lab	DSC-1/2/3CP-Phys-Lab DSC-1/2/3CP-Bot-Lab	DSC-1/2/3CT-Math- Geo Annex DSC-1/2/3CP-Zoo- Annex Lab	DSC-1/2/3CP-Zoo-Lab

	V (H)		<p>C12T (Phys)-Dept. Annex C12T (Chem)-Com Lab C12T (Bot)-L3 C12T (Zoo)-CL1 C12T (Math)-SH Anx C12T (Geo)-F5</p>	<p>C11T (Phys)-Dept. Annex C11T (Chem)-Com Lab C11T (Bot)-L3 C11T (Zoo)-CL1 C11T (Math)-S2 C11T (Geo)-SH Anx</p>	<p>DSE2T (Phys)-Electric. Lab DSE2T (Chem)-Org L DSE2T (Bot)-L3 DSE2T (Zoo)-CL1 DSE2T (Math)-Com Lab DSE2T (Geo)-SH. Anx</p>
	V (G)	<p>DSE-1/2/3AP-Phys-Lab DSE-1/2/3AP-Bot-Lab</p>	<p>DSE-1/2/3AP-Phys-Lab DSE-1/2/3AP-Bot-Lab</p>	<p>DSE-1/2/3AT-Math-A8 DSE1/2/3A1P-Zoo-Lab</p>	<p>DSE-1/2/3AP-Zoo-Lab</p>
Saturday	I (H)		<p>C1P (Phys)-Com. Lab C1P (Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1 C1T (Math)-Dept C1T (Geo)-Lab</p>	<p>C1P (Phys)-Com. Lab C1P (Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1 C2T (Math)-Dept</p>	<p>GE1T (Chem)- GE1T (Phys)-Gen. Lab GE1T (Bot)-L1 GE1T (Zoo)-L1 GE1T (Math)-Dept GE1T (Geo)-Lab GE1T (Physio)-Lab-PD</p>
	I (G)	<p>DSC-1/2/3AP-Zoo-Lab</p>	<p>DSC-1/2/3AP-Zoo-Lab</p>	<p>DSC-1/2/3AT-Phys-Lab DSC-1/2/3AT-Geo. Annex</p>	<p>DSC-1/2/3AT-Math-</p>


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	III (H)	C7P (Phys)- Electron. Lab C7PChem)- Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab C7T (Geo)-Lab	C7P (Phys)-Electron. Lab C7PChem)- Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab C7T (Geo)-F5	SEC1T (Phys)-Electron Lab SEC1T (Bot)-L2 SEC1T (Zoo)-L2 SEC1T (Math)-TR SEC1T (Geo)-S2	GE3T (Phys)-Electric. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Org L GE3T (Geo)-F. Anx GE3T (Physio)-Lab- SKK
	III (G)	DSC-1/2/3CP-Zoo- Lab	DSC-1/2/3CP-Zoo-Lab	SEC1P (Phys)-Lab SEC1P (Bot)-Lab SEC1P (Zoo)-Lab SEC1P (Geo)-Lab SEC1P-(Chem)-Lab SEC1P- (Physio)-Lab- SKK	SEC1P (Phys)-Lab SEC1P (Bot)-Lab SEC1P (Zoo)-Lab SEC1P (Geo)-Lab SEC1P-(Chem)-Lab SEC1P- (Physio)-Lab- SKK
	V (H)		DSE1T (Phys)-Electric. Lab DSE1T(Chem)-Inorg. Lab DSE1T (Bot)-L3 DSE1T (Zoo)-CL1 DSE1T (Math)-F. Anx DSE1T (Geo)-A7	DSE2T (Phys)-Electric. Lab DSE1P(Chem)-Iorg L DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE2T (Math)-F. Anx DSE1P (Geo)-Lab	DSE1T (Phys)-Electron. Lab DSE1P(Chem)-Iorg Lab DSE1P (Bot)-L3 DSE1P (Zoo)-CL1 DSE1T (Math)-F3 DSE1P (Geo)-Lab
	V (G)	DSE-1/2/3AP-Zoo- Lab	DSE-1/2/3AP-Zoo-Lab	SEC3P (Phys)-Lab SEC3P (Bot)-Lab SEC3P (Zoo)-Lab SEC3P (Geo)-Lab SEC3P-(Chem)-Lab SEC3P- (Physio)-Lab- PD	SEC3P (Phys)-Lab SEC3P (Bot)-Lab SEC3P (Zoo)-Lab SEC3P (Geo)-Lab SEC3P-(Chem)-Lab SEC3P- (Physio)-Lab- PD

02.00-03.00	03.00-04.00	04.00-05.00			
C1P (Phys)-Com. Lab C1P (Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1 C1T (Geo)-Lab	C1P (Phys)-Com Lab C1P(Chem)-Org L C1P (Bot)-L1 C1P (Zoo)-L1				
DSC-1/2/3AP-Phys- Lab DSC-1/2/3AP-Bot- Lab	DSC-1/2/3AP-Phys- Lab DSC-1/2/3AP-Bot- Lab	DSC-1/2/3AT- Math-A7			
C7T (Phys)-Dept. Annex C7T (Chem)-Iorg L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-Dept C7T (Geo)-A7	GE3P (Phys)-Electri. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3T (Geo)-S6 GE3P (Physio)-Lab- SKK	GE3P (Phys)- Electri. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3P (Physio)-Lab- SKK			
DSC-1/2/3CP- Physio-Lab2-SKK DSC-1/2/3CP-Geo- Lab	DSC-1/2/3CP- Physio-Lab2-SKK DSC-1/2/3CP-Geo- Lab	DSC-1/2/3CT- Math-Dept-Geo Annex			



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DSE1T (Phys)- Electric. Lab DSE1T(Chem)-F5 DSE1T (Bot)-L3 DSE1T (Zoo)-CL1 DSE1T (Math)-A2 DSE1T (Geo)-SH. Annex	C11P (Phys)-Com. Lab C11P(Chem)-Iorg. lab C11P (Bot)-L3 C11P (Zoo)-CL1 C11T (Math)-Dept C11P (Geo)-Lab	C11P (Phys)-Com. Lab C11P(Chem)-Iorg. Lab C11P (Bot)-L3 C11P (Zoo)-CL1 C11P (Geo)-Lab			
DSE-1/2/3AP- Physio-Lab-SKK DSE-1/2/3AP-Geo- lab	DSE-1/2/3AP- Physio-Lab-SKK DSE-1/2/3AP-Geo- Lab	DSE-1/2/3AT- Math-F. Annex			
GE1P (Chem)- GE1P (Phys)- Electron. Lab GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1P (Physio)-Lab- SKK	AECC: ENG-Sem. Hall				
DSC-1/2/3AP- Chem-Lab	AECC: ENG-Sem. Hall	DSC-1/2/3AT- Physio-Lab-PD DSC-1/2/3AT-Geo- Lab			



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<p>GE3T (Phys)-Gen. Lab</p> <p>GE3T (Bot)-L2</p> <p>GE3T (Zoo)-L2</p> <p>GE3T (Chem)-Org L</p> <p>GE3T (Geo)-A7</p> <p>GE3T (Physio)-Lab-PD</p>	<p>C6P (Phys)-Electric. Lab</p> <p>C6P (Chem)-Inorg L</p> <p>C6P (Bot)-L2</p> <p>C6P (Zoo)-L2</p> <p>C6P (Geo)-Lab</p>	<p>C6P (Phys)-Electric. Lab</p> <p>C6P (Chem)-Inorg L</p> <p>C6P (Bot)-L2</p> <p>C6P (Zoo)-L2</p> <p>C6P (Geo)-Lab</p>			
<p>DSC-1/2/3CP-Chem Lab</p>	<p>DSC-1/2/3CT-Physio-Lab1-PD</p> <p>DSC-1/2/3CT-Geo-Lab1</p>	<p>SEC-1T-Math-Dept</p>			
<p>C12P (Phys)-Electric. Lab</p> <p>C12P (Chem)-Org L</p> <p>C12P (Bot)-L3</p> <p>C12P(Zoo)-CL1</p> <p>C12T (Math)-Dept</p> <p>C12P (Geo)-Lab</p>	<p>C12P (Phys)-Electric. Lab</p> <p>C12P (Chem)-Org L</p> <p>C12P (Bot)-L3</p> <p>C12P(Zoo)-CL1</p> <p>C12P (Geo)-Lab</p>				
<p>DSE-1/2/3AP-Chem Lab</p>	<p>DSE-1/2/3AP-Phys-Lab</p> <p>DSE-1/2/3AP-Bot-Lab</p>	<p>DSE-1/2/3AP-Phys-Lab</p> <p>DSE-1/2/3AP-Bot-Lab</p>			
<p>C2P (Phys)-Gen Lab</p> <p>C2P (Chem)-Phyc L</p> <p>C2P (Bot)-L1</p> <p>C2P (Zoo)-L1</p> <p>C2P (Geo)-Lab</p>	<p>C2P (Phys)-Gen Lab</p> <p>C2P (Chem)-Phyc L</p> <p>C2P (Bot)-L1</p> <p>C2P (Zoo)-L1</p> <p>C2P (Geo)-Lab</p>				


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DSC-1/2/3AP-Physio-Lab1-PD DSC-1/2/3AP-Geo-Lab					
GE3T (Phys)-Electric. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Iorg L GE3T (Geo)-A7 GE3T (Physio)-Lab-PD	C7P (Phys)-Electron. Lab C7P(Chem)-Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab	C7P (Phys)-Electron. Lab C7P(Chem)-Org L C7P (Bot)-L2 C7P (Zoo)-L2 C7P (Math)-Com Lab			
DSC-1/2/3CP-Phys-lab DSC-1/2/3CP-Bot-Lab	DSC-1/2/3CP-Phys-Lab DSC-1/2/3CP-Bot lab				
DSE2T (Phys)-Dept. Annex DSE2T(Chem)-Org Lab DSE2T (Bot)-L3 DSE2T (Zoo)-L3 DSE2T (Math)-Dept DSE2T (Geo)-F. Annex	C11P (Phys)-Com. Lab C11P(Chem)-Iorg L C11P (Bot)-L3 C11P (Zoo)-L3 C11T (Math)-Dept C11P (Geo)-Lab	C11P (Phys)-Com. Lab C11P(Chem)-Iorg L C11P (Bot)-L3 C11P (Zoo)-L3 C11P (Geo)-Lab			

DSE-1/2/3AT-Math-TR DSE-1/2/3AT-Zoo-CL1	DSE-1/2/3AT-Physio-Lab2-PD DSE-1/2/3AT-Geo-A7			
AFCC: ENG-Sem. Hall				
AFCC: ENG-Sem. Hall	DSC-1/2/3AT-Phys-Lab DSC-1/2/3AT-Bot-Lab	DSC-1/2/3AT-Physio-Lab-PD DSC-1/2/3AT-Geo-Geo Annex-		
C7T (Phys)-Dept. Annex C7T (Chem)-Iorg L C7T (Bot)-L2 C7T (Zoo)-L2 C7T (Math)-Dept C7T (Geo)-Lab	GE3P (Phys)-Electric. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L GE3T (Geo)-F. Anx GE3P (Physio)-Lab-PD	GE3P (Phys)-Electric. Lab GE3P (Bot)-L2 GE3P (Zoo)-L2 GE3P (Chem)-Iorg L L GE3P (Physio)-Lab-PD		


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DSC-1/2/3CT-Phys-Lab DSC-1/2/3CT-Bot-Geo. Annex	DSC-1/2/3CT-Chem-Org L	SEC1T (Phys)-A1 SEC1T (Bot)-A2 SEC1T (Zoo)-A3 SEC1T (Math)-A4 SEC1T (Geo)-G1 SEC1T-(Chem)-G3 SEC1T- (Physio)-G4-PD			
DSE2T (Phys)-Electric. Lab DSE2T(Chem)-Org L DSE2T (Bot)-L3 DSE2T (Zoo)-CL1 DSE2T (Math)-F Anx DSE2T (Geo)-A7	C12P (Phys)-Electric. Lab C12P (Chem)-Org L C12P (Bot)-L3 C12P(Zoo)-CL1 C12T (Math)-Dept C12P (Geo)-Lab	C12P (Phys)-Electric. Lab C12P (Chem)-Org L C12P (Bot)-L3 C12P(Zoo)-CL1 C12P (Geo)-Lab			
DSE-1/2/3AT-Phys-Lab DSE-1/2/3AT-Bot-Lab	DSE-1/2/3AT-Physio-Lab-PD DSE-1/2/3AT-Geo-Lab	SEC3T (Phys)-Lab SEC3T (Bot)-Lab SEC3T (Zoo)-Lab SEC3T (Math)-Dept SEC3T (Geo)-Lab SEC3T-(Chem)-Lab SEC3T- (Physio)-Lab-PD			



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<p>GE1P(Chem)- GE1P (Phys)- Electron. Lab GE1P(Bot)-L1 GE1P (Zoo)-L1 GE1P (Physio)-Lab- PD</p>					
<p>DSC-1/2/3AP-Zoo- Lab</p>	<p>DSC-1/2/3AP-Phys- Lab DSC-1/2/3AP-Bot- Lab</p>	<p>DSC-1/2/3AP- Phys-Lab DSC-1/2/3AP-Bot- Lab</p>			
<p>GE3T (Phys)-Gen. Lab GE3T (Bot)-L2 GE3T (Zoo)-L2 GE3T (Chem)-Iorg L GE3T (Geo)-Lab GE3T (Physio)-Lab- SKK</p>	<p>SEC1P (Chem)-Iorg L C5T (Math)-Dept</p>	<p>SEC1P (Chem)- Iorg L</p>			
<p>SEC1T (Phys)-Opt Lab SEC1T (Bot)-L3 SEC1T (Zoo)-CL1 SEC1T (Math)-Dept SEC1T (Geo)-F. anx SEC1T-(Chem)- Comp Lab SEC1T- (Physio)Lab- PD</p>	<p>DSC-1/2/3CP- Physio-Lab-PD DSC-1/2/3CP-Geo- Lab</p>	<p>DSC-1/2/3CP- Physio-Lab-PD DSC-1/2/3CP-Geo- Lab</p>			



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DSE2P(Chem)-Org L DSE2P (Bot)-L3 DSE2P (Zoo)-CL1 DSE2T (Geo)S5-	DSE2P(Chem)-Org L DSE2P (Bot)-L3 DSE2P (Zoo)-CL1 DSE2T (Geo)-Lab				
SEC3T (Phys)-S6 SEC3T (Bot)-Lab SEC3T (Zoo)-Lab SEC3T (Math)-A3 SEC3T (Geo)-Lab SEC3T-(Chem)-Lab SEC3T- (Physio)-Lab-SKK	DSE-1/2/3AP- Physio-Lab-SKK DSE1/2/3AP-Geo- Lab	DSE-1/2/3AP- Physio-Lab-SKK DSE1/2/3AP-Geo- Lab			



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A.A. 21/2
27/04/24



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Narajole, Pin-721 211

Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Department of Bengali (UG)														Semester: Even
Academic Session: 2021-22														
Dr. Nilanjana Bhattacharyya (Associate Professor & Head)														
	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-14-T	02	C-10-T	02	BNHCL C-2	02	DSE-4H	02	SEC-2-H	03	C-4-T	02	X	X	13
Dr. Sadhan Chandra Pandit (Assistant Professor - Stage 3)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-3-T	02	C-9-T	02	C-14-T	02	AECC-MIL -1	01	SEC2TG	02	DSE3TH	2	X	X	11
Dr. Dipak Shom (Assistant Professor - Stage 2)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-3-T	02	C-8-T	02	C-9-T	02	SECE-2-T-H	02	C13_T	02	DSE-4-T	02	DSC1B	02	14
Prof. Avijit chakraborty(SACT)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-3-T	02	C-9-T	02	C-14-T	02	SEC2G	02	GE2G	02	X	X	X	X	10
Prof. Madhumita Addhya(SACT)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
GE-2-T	02	C-8-T	02	C13T	02	GE-4-T	02	SEC2G	01	GE2TG	1	X	X	10
Prof. Sanat Pan (SACT)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
GE2T	02	C-10-T	03	DSE-3-T-H	02	BNGCL C -1	01	DSC-1-B	01	SEC-2-T-G	01	DSE-1-B-T	2	12

Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Department of Bengali (UG)

Academic Session: 2021-22

Semester: Even

Prof. Dipashree Roy (SACT)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-4-T	02	C-10-T	02	C13-T	02	GE-2-T	02	GE-2-T-G	02	DSC-1D	02	DSE-1-B-T	02	14

Prof. Goutam Jana (SACT)

Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-4-T	02	C-8-T	02	DSE-3-T-H	02	DSC-1B	02	DSC-1D	02	GE-4-T	02	SEC-4-T-G	02	14



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Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Department of Bengali (UG)														
Academic Session: 2021-22										Semester: ODD				
Dr. Nilanjana Bhattacharyya (Associate Professor & Head)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-7-T	02	C-11-T	03	GE-1-T	02	DSE-2H	02	SEC-3-G	02	GE-1-G	02	X	X	13
Dr. Sadhan Chandra Pandit (Assistant Professor - Stage 3)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-1-T	02	C-7-T	03	C-12-T	02	DSE-1H	02	DSE-G	02	X	X	X	X	11
Dr. Dipak Shom (Assistant Professor - Stage 2)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-1-T	02	C-6-T	02	C-12-T	02	GE-1-T	02	DSE1H	02	SEC-1H	02	GE-1-G	02	14
Prof. Avijit chakraborty(SACT)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-2-T	02	C-6-T	02	C-11-T	02	DSC-1c	02	DSE-G	02	X	X	X	X	10
Prof. Madhumita Addhya(SACT)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-2-T	02	C-5-T	02	DSC-1a	02	GE-3-T	02	GE-1-G	02	X	X	X	X	10
Prof. Sanat Pan (SACT)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C-1-T	02	C-5-T	02	GE-3-T	02	DSC-1a	02	SEC-1-G	02	DSE-1G	02	X	X	12



Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Dept. of Botany													Semester: ODD		
Academic Session: 2021-22 (July'21 - Dec'21)															
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)															
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes	
C1T	02	C1P	02	DSC-1AT	02	C6T	01	C6P	02	DSC-1CT	01	C12T	02		
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)															
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes	
C12P	02	DSE 2T	02	DSE 2P	02	DSE1AT	02	DSE1AP	02	X	X	X	X	22	
Prof. Nandita Bhakat (Assistant Professor - Stage 1)															
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes	
C2T	02	C2P	02	C5T	02	C5P	02	C7T	01	C7P	02	GE3T	02		
Prof. Nandita Bhakat (Assistant Professor - Stage 1)															
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes	
GE3P	02	SEC-1T	01	DSE 1T	02	DSE1P	02	DSE1AT	01	SEC3T	01	X	X	22	
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)															
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes	
DSc1AT	02	DSC1A P	04	C6T	01	SEC1T	01	GE3T	02	GE3P	02	SEC1T	01		
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)															
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes	
C12T	01	C12P	02	DSE1T	02	DSE1P	02	DSE2T	01	SEC3T	01	X	X	22	
Name of the Department: Dept. of Botany															



Data Capturing Format (DCF) for Distribution of Papers & Classes

Academic Session: 2021-22 (July'21 - Dec'21)														Semester: ODD
Dr. Prithwi Ghosh (Assistant Professor - Stage 1)														
Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Total Weekly Classes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
C2T	02	C2P	02	GE1T	01	C6T	02	C6P	02	C7T	01	C11T	02	
Dr. Prithwi Ghosh (Assistant Professor - Stage 1)														
Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Total Weekly Classes
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	
C11P	02	DSE2T	01	DSE2P	02	DSE1AT	01	DSE1AP	02	C5T	02	X	X	22
Prof. Sanjay Kumar Datta (State Aided College Teacher)														
Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Total Weekly Classes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
C1T	02	C1P	02	GE1T	02	GE1P	02	C5P	02	SEC1T	01	DSC1CT	01	
Prof. Sanjay Kumar Datta (State Aided College Teacher)														
Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Total Weekly Classes
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	
DSC1CP	02	C12T	01	X	X	X	X	X	X	X	X	X	X	15
Prof. Arpita Chakraborty (State Aided College Teacher)														
Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Total Weekly Classes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
GE1T	01	GE1P	02	C7T	02	C7P	02	DSC1CT	02	DSC1CP	02	C11T	02	
Prof. Arpita Chakraborty (State Aided College Teacher)														
Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Paper Code	Weekly Classes	Total Weekly Classes
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	
C11P	02	X	X	X	X	X	X	X	X	X	X	X	X	15

Name of the Department: Dept. of Botany
Academic Session: 2021-22 (Jan'22-June'22)

Semester: EVEN



Data Capturing Format (DCF) for Distribution of Papers & Classes

Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C4T	02	C4P	02	DSC2BT	02	C8T	01	C8P	02	DSC2D T	01	C13T	02	
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C13P	02	C14T	02	C14P	02					X	X	X	X	18
Prof. Nandita Bhakat (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C3T	02	C8T	03	C8P	02	C10T	02	C10P	02	GE4T	02	GE4P	02	
Prof. Nandita Bhakat (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C13T	02	C13P	02									X	X	19
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
DSC2BT	02	DSC2BP	04	C9T	01	SEC2T	01	GE4T	02	GE4P	02	C14T	02	
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C14P	02	DSE4T	02	DSE4P	02							X	X	20



NARAJOLE RAJ COLLEGE



(NAAC Accredited 'B' Grade Govt. Aided College)
NARAJOLE : PASCHIM MEDINIPUR : PIN – 721 211
Ph.: 9475429270 e-mail : narajolerajcollege@rediffmail.com

Teaching Plan

Name of the Department : Bengali (PG).
Name of the Teacher : Dr. Nilanjana Bhattacharyya
Name of the Distinctive : BNGPG – 405D
Number of the paper (Title -) গল্প হেকিম সাহেব (নাটক) : মনোজ মিত্র
Session : 2021-22
Semester : IV(PG)

Sl. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
Lecture 01	গল্প হেকিম সাহেব (নাটক) : মনোজ মিত্র	ভূমিকা : বাংলা নাট্যসাহিত্য ও মনোজ মিত্র
Lecture 02		পাঠ বিশ্লেষণ – ১ অঙ্ক / দৃশ্য : ১/১, ১/২
Lecture 03		পাঠ বিশ্লেষণ – ২ অঙ্ক / দৃশ্য : ১/৩, ১/৪
Lecture 04		পাঠ বিশ্লেষণ – ৩ অঙ্ক / দৃশ্য : ১/৫, ২/১
Lecture 05		পাঠ বিশ্লেষণ – ৪ অঙ্ক / দৃশ্য : ২/২, ২/৩
Lecture 06		পাঠ বিশ্লেষণ – ৫ অঙ্ক / দৃশ্য : ২/৪, ২/৫
Lecture 07		রসতাত্ত্বিক আলোচনা – ১ রূপক নাটক রূপে ' গল্প হেকিম সাহেব' – এর আলোচনা
Lecture 08		রসতাত্ত্বিক আলোচনা – ২ সামাজিক নাটক রূপে ' গল্প হেকিম সাহেব' – এর আলোচনা
Lecture 09		' গল্প হেকিম সাহেব' – এর সংলাপ



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Teaching Plan

Sl. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
Lecture 10	গল্প হেকিম সাহেব (নাটক) : মনোজ মিত্র	গল্প হেকিম সাহেব' – এর হাস্যরস
Lecture 11		গল্প হেকিম সাহেব' – এর গঠনশৈলী
Lecture 12		গল্প হেকিম সাহেব' – এর প্রধান চরিত্রগুলির আলোচনা
Lecture 13		গল্প হেকিম সাহেব' – এর অপ্রধান চরিত্রগুলির আলোচনা
Lecture 14		সম্ভাব্য প্রশ্নাবলী
Lecture 15		সম্ভাব্য প্রশ্নাবলী
Lecture 16		সম্ভাব্য প্রশ্নাবলী

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Teaching Plan

Name of the Department : Bengali (PG).
Name of the Teacher : Dr. Nilanjana Bhattacharyya
Name of the Distinctive : BNGPG – 405D
Number of the paper (Title -) গল্প হেকিম সাহেব (নাটক) : মনোজ মিত্র
Session : 2021-22
Semester : V (UG).

Sl. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
Lecture 01	গল্প হেকিম সাহেব (নাটক) : মনোজ মিত্র	ভূমিকা : বাংলা নাট্যসাহিত্য ও মনোজ মিত্র
Lecture 02		পাঠ বিশ্লেষণ – ১ অঙ্ক / দৃশ্য : ১/১, ১/২
Lecture 03		পাঠ বিশ্লেষণ – ২ অঙ্ক / দৃশ্য : ১/৩, ১/৪
Lecture 04		পাঠ বিশ্লেষণ – ৩ অঙ্ক / দৃশ্য : ১/৫, ২/১
Lecture 05		পাঠ বিশ্লেষণ – ৪ অঙ্ক / দৃশ্য : ২/২, ২/৩
Lecture 06		পাঠ বিশ্লেষণ – ৫ অঙ্ক / দৃশ্য : ২/৪, ২/৫
Lecture 07		রসতাত্ত্বিক আলোচনা – ১ রূপক নাটক রূপে ' গল্প হেকিম সাহেব' – এর আলোচনা
Lecture 08		রসতাত্ত্বিক আলোচনা – ২ সামাজিক নাটক রূপে ' গল্প হেকিম সাহেব' – এর আলোচনা
Lecture 09		' গল্প হেকিম সাহেব' – এর সংলাপ

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Teaching Plan

Sl. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
Lecture 10	গল্প হেকিম সাহেব (নাটক) : মনোজ মিত্র	গল্প হেকিম সাহেব' – এর হাস্যরস
Lecture 11		গল্প হেকিম সাহেব' – এর গঠনশৈলী
Lecture 12		গল্প হেকিম সাহেব' – এর প্রধান চরিত্রগুলির আলোচনা
Lecture 13		গল্প হেকিম সাহেব' – এর অপ্রধান চরিত্রগুলির আলোচনা
Lecture 14		সম্ভাব্য প্রশ্নাবলী
Lecture 15		সম্ভাব্য প্রশ্নাবলী
Lecture 16		সম্ভাব্য প্রশ্নাবলী

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PHYCOLOGY AND MICROBIOLOGY (CC1 T & P)

Session: 2021-2022 (JULY'2021 –DEC'2021)

Semester: I (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 3: Bacteria	Discovery and general characteristic of bacteria.
Lecture 02		Eubacteria and wall less forms
Lecture 03		Cell structure, Nutrition types of bacteria.
Lecture 04		Reproduction- vegetative and asexual
Lecture 05		Reproduction-Recombination.
Lecture 06	Unit 4: Algae	General characteristics of algae.
Lecture 07		Ecology, distribution, range of thallus organization of algae.
Lecture 08		Cell structure and components
Lecture 09		Cell wall, Pigment system, reserve food of Algae.
Lecture 10		Types of flagella, methods of reproduction of algae.
Lecture 11		Classification: Criteria, system of Fritsch.
Lecture 12		Evolutionary classification of Lee and Van-den Hoeke t. al.
Lecture 13		Significant contributions of important phycologists.
Lecture 14		Role of algae in the environment, agriculture, biotechnology and industry.
Lecture 15	Unit 5: Cyanophyta and Xanthophyta	Cyanophyta: Ecology and occurrence, range of thallus organization, cell structure, reproduction, morphology.
Lecture 16		Xanthophyta: Ecology and occurrence range of thallus organization, cell structure, reproduction, morphology.

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Lecture 17		Life cycle of <i>Nostoc</i> .
Lecture 18		Life cycle of <i>Vaucheria</i> .
Lecture 19		Revision
Lecture 20		Revision
Lecture 21		Revision
Practical 1	Practical Microbiology	Electron micrographs/Models of viruses – T-Phage and TMV, Line drawings/ Photographs of Lytic and Lysogenic Cycle.
Practical 2		Types of Bacteria to be observed from temporary/permanent slides/photographs.
Practical 3		Electron micrographs of bacteria, binary fission, endospore, conjugation, root Nodule.
Practical 4		Gram staining.
Practical 5		Endospore staining with malachite green using the (endospores taken from soil bacteria).
Practical 6		Study of bacteria from root nodules/Curd sample.

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: ECONOMIC BOTANY (CC6 T & P)

Session: 2021-2022 (JULY'2021 – DEC'2021)

Semester: III (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 4: Source of sugars and starches	Morphology cultivation, management and processing of sugarcane, products and by-products of sugarcane industry.
Lecture 02		Potato – morphology, propagation & uses.
Lecture 03	Unit 5: Spices	Listing of important spices, their family and part used. Economic importance with special reference to fennel, saffron, clove and black pepper
Lecture 4	Unit 6: Beverages	Tea: morphology, processing & uses.
Lecture 5		Coffee: morphology, processing & uses.
Lecture 6	Unit 7: Sources of oils and fats	General description, classification, extraction, their uses and health implications of groundnut, coconut, linseed (Botanical name, family & uses).
Lecture 7		General description, classification, extraction, their uses and health implications of soybean, mustard and coconut (Botanical name, family & uses).
Lecture 8		Essential Oils: General account, extraction methods, comparison with fatty oils & their uses.
Lecture 9		Revision
Lecture 10		Revision
Lecture 12		Revision
Practical 1	Practical Economic botany	Cereals: Wheat (habit sketch, L. S/T.S. grain, starch grains, micro-chemical tests) Rice (habit sketch,

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		study of paddy and grain, starch grains, micro-chemical tests).
Practical 2		Legumes: Soybean, Groundnut, (habit, fruit, seed structure, micro-chemical tests).
Practical 3		Sources of sugars and starches: Sugarcane (habit sketch; cane juice- micro-chemical tests), Potato (habit sketch, tuber morphology, T.S. tuber to show localization of starch grains, w.m. starch grains, micro-chemical tests).
Practical 4		Spices: Black pepper, Fennel and Clove (habit and sections).
Practical 5		Beverages: Tea (plant specimen, tea leaves), Coffee (plant specimen, beans).
Practical 6		Sources of oils and fats: Coconut- T.S. nut, Mustard–plant specimen, seeds; tests for fats in crushed seeds

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT PHYSIOLOGY (CC12 T & P)

Session: 2021-2022 (JULY'2021 –DEC'2021)

Semester: V (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 5: Plant growth regulators	Discovery, chemical nature (basic structure), bioassay and physiological roles of - Auxin,
Lecture 02		-Gibberellins,,
Lecture 03		-Cytokinin
Lecture 04		-Abscisic acid,
Lecture 05		-Ethylene,
Lecture 06		-Brassinosteroids and Jasmonic acid
Lecture 07	Unit 6: Physiology of flowering	Photoperiodism, flowering stimulus, florigen concept,
Lecture 08		vernalization,
Lecture 09		seed dormancy.
Lecture 10	Unit 7: Phytochrome, crytochromes and phototropins	Discovery, chemical nature, role in photomorphogenesis.
Lecture 11		low energy responses (LER) and high irradiance responses (HIR), mode of action.
Lecture 12		Revision
Lecture 13		Revision
Lecture 14		Revision
Practical 1	Practical	Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a mesophyte.
Practical 2		Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a xerophyte.
Practical 3		To calculate the area of an open stoma and percentage of leaf area open through stomata in a mesophyte (both surfaces).
Practical 4		To calculate the area of an open stoma and percentage of leaf area open through stomata in a



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		xerophyte (both surfaces).
Practical 5		To study the phenomenon of seed germination (effect of light).
Practical 6		To study the effect of different concentrations of IAA on <i>Avena</i> coleoptile elongation (IAA Bioassay).
Practical 7		To study the induction of amylase activity in germinating barley grains.
Practical 8		To demonstrate suction due to transpiration.
Practical 9		Fruit ripening/Rooting from cuttings (Demonstration).
Practical 10		Bolting experiment/ <i>Avena</i> coleoptiles bioassay (demonstration).

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT BREEDING (DSE 2T & P)

Session: 2021-2022 (JULY'2021 –DEC'2021)

Semester: V (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 1: Plant breeding	Introduction and objectives of breeding systems.
Lecture 02		Modes of reproduction in crop plants.
Lecture 03		Important achievements and undesirable consequences of plant breeding.
Lecture 04	Unit 2: Methods of Crop improvement	Introduction: Centres of origin and domestication of crop plants
Lecture 05		plant genetic resources; Acclimatization.
Lecture 067		Selection methods: For self pollinated propagated plants.
Lecture 07		cross pollinated and vegetative propagated plants.
Lecture 08		Hybridization: For self, propagated plants – Procedure, advantages and limitations.
Lecture 9		Hybridization: For cross propagated plants – Procedure, advantages and limitations.
Lecture 10		Hybridization: For vegetative propagated plants – Procedure, advantages and limitations.
Lecture 11		Revision
Lecture 12		Revision
Lecture 13		Revision
Practical 1	Practical Plant Breeding	Identification of offspring's having parental genotypes and recombinant genotypes, based on combination of morphological attributes in a dihybrid cross.
Practical 2		Processes of emaculation – By applying higher temperature.



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Practical 3		Processes of emaculation –By amputing anthers
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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: BIODIVERSITY (DSC 2AT)

Session: 2021-2022 (JULY'2021 –DEC'2021)

Semester: I (GENERAL)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit 4: <u>Theory</u> Introduction to Archegoniate	Unifying features of archegoniates.
Lecture 02		Transition to land habit, Alternation of generations.
Lecture 03	Unit 5: Bryophytes	General characteristics, adaptations to land habit
Lecture 04		Range of thallus organization, Classification (up to family).
Lecture 05		Morphology, anatomy and reproduction of <i>Marchantia</i> .
Lecture 06		Morphology, anatomy and reproduction of <i>Funaria</i> .
Lecture 07		Ecology and economic importance of bryophytes with special mention of <i>Sphagnum</i> .
Lecture 08	Unit 6: Pteridophytes	General characteristics, classification, Classification (up to family),
Lecture 09		Early land plants (<i>Cooksonia</i> and <i>Rhynia</i>).
Lecture 10		Morphology, anatomy and reproduction of <i>Selaginella</i> , (Developmental details not to be included).
Lecture 11		Morphology, anatomy and reproduction of <i>Equisetum</i> . (Developmental details not to be included).
Lecture 12		Morphology, anatomy and reproduction of <i>Pteris</i> . (Developmental details not to be included).
Lecture 13		Heterospory and seed habit, stelar evolution.



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Lecture 14		Ecological and economical importance of Pteridophytes.
Lecture 14	Unit 7: Gymnosperms	General characteristics, classification. Classification (up to family),
Lecture 15		Morphology, anatomy and reproduction of <i>Cycas</i> (Developmental details not to be included).
Lecture 16		Morphology, anatomy and reproduction of <i>Pinus</i> . (Developmental details not to be included). Ecological and economical importance.
Lecture 17		Ecological and economical importance.

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT ANATOMY AND EMBRYOLOGY (DSC 2CT)

Session: 2021-2022 (JULY'2021 –DEC'2021)

Semester: III (GENERAL)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	<u>Theory</u> Unit 4: Adaptive and protective systems	Epidermis, cuticle, stomata; General account of adaptations in xerophytes.
Lecture 02		Epidermis, cuticle, stomata; General account of adaptations in hydrophytes.
Lecture 03	Unit 5: Structural organization of flower	Structure of anther and pollen.
Lecture 04		Structure and types of ovules.
Lecture 05		Types of embryo sacs.
Lecture 06		Organization and ultrastructure of mature embryo sac.

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: ECONOMIC BOTANY AND BIOTECHNOLOGY (DSE 2AT & P)

Session: 2021-2022 (JULY'2021 –DEC'2021)

Semester: V (GENERAL)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	<u>Theory</u> Unit 5: Beverages	Tea (morphology, processing, uses)
Lecture 02	Unit 6: Oils and Fats	General description with special reference to groundnut.
Lecture 03	Unit 7: Fibre Yielding Plants	General description with special reference to Cotton (Botanical name, family, part used, morphology and uses).
Lecture 04		Revision
Lecture 05		Revision
Lecture 06		Revision
Practical 1	<u>Practical</u>	Study of economically important plants : Wheat, Gram, through specimens, sections and microchemical tests.
Practical 2		Study of economically important plants : Soybean, Black pepper, Clove through specimens, sections and microchemical tests.
Practical 3		Study of economically important plants : Tea, through specimens, sections and microchemical tests.
Practical 4		Study of economically important plants : Cotton, Groundnut through specimens, sections and microchemical tests.

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: ARCHEGONIATE (CC 4 T)

Session: 2021-2022 (JAN'2022 –JUNE'2022)

Semester: II (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit 3: Type studies- Bryophytes	Classification (up to family),
Lecture 02		Morphology, anatomy and reproduction of – <i>Riccia</i>
Lecture 03		– <i>Marchantia</i>
Lecture 04		– <i>Pellia</i>
Lecture 05		– <i>Porella</i>
Lecture 06		– <i>Anthoceros</i>
Lecture 07		– <i>Sphagnum</i>
Lecture 08		– <i>Funaria and Pogonatum</i>
Lecture 09		Reproduction and evolutionary trends in <i>Riccia</i> , <i>Marchantia</i> , <i>Plagichasma</i> <i>Anthoceros</i> and <i>Funaria</i> (developmental stages not included).
Lecture 10		Ecological and economic importance of bryophytes with special reference to <i>Sphagnum</i> .
Lecture 11		Revision
Lecture 12		Revision
Lecture 13		Revision

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: MOLECULAR BIOLOGY (CC8 T)

Session: 2021-2022 (JAN'2022 –JUNE'2022)

Semester: IV (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit- 1: Nucleic acids: Carriers of genetic information	Historical perspective;
Lecture 02		DNA as the carrier of genetic information - Griffith's experiment.
Lecture 03		-Hershey & Chase experiment.
Lecture 04		-Avery, McLeod & McCarty experiment.
Lecture 05		-Fraenkel-Conrat's experiment.
Lecture 06	Unit -2. The Structures of DNA and RNA / Genetic Material	DNA Structure: Miescher to Watson and Crick- historic perspective.
Lecture 07		DNA structure, Salient features of double helix.
Lecture 08		Types of DNA.
Lecture 09		Types of genetic material, denaturation and renaturation.
Lecture 10		Cot curves; Organization of DNA-Prokaryotes, Viruses, Eukaryotes.
Lecture 11		RNA Structure.
Lecture 12		Organelle DNA - mitochondria and chloroplast DNA.
Lecture 13		The Nucleosome.
Lecture 14		Chromatin structure- Euchromatin.
Lecture 15		Heterochromatin- Constitutive and Facultative heterochromatin.
Lecture 16	Unit- 3: The replication of DNA	Chemistry of DNA synthesis (Kornberg's discovery);
Lecture 17		General principles – bidirectional, semiconservative and semi discontinuous replication,
Lecture 18		RNA priming;
Lecture 19		Various models of DNA replication, including rolling



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		circle,
Lecture 20		θ (theta) mode of replication,
Lecture 21		replication of linear ds-DNA,
Lecture 22		replication of the 5' end of linear chromosome;
Lecture 23		Enzymes involved in DNA replication.
Lecture 24		Revision
Lecture 25		Revision

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT METABOLISM (CC13 T)

Session: 2021-2022 (JAN'2022 –JUNE'2022)

Semester: VI (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit 1: Concept of metabolism	Introduction, anabolic and catabolic pathways.
Lecture 02		Regulation of metabolism.
Lecture 03		Role of regulatory enzymes (allosteric, covalent modulation and Isozymes).
Lecture 04	Unit 2: Carbon assimilation	Historical background, photosynthetic pigments.
Lecture 05		Role of photosynthetic pigments (chlorophylls and accessory pigments).
Lecture 06		Antenna molecules and reaction centres,
Lecture 07		Photochemical reactions, photosynthetic electron transport, PSI, PSII, Q cycle,
Lecture 08		CO ₂ reduction,
Lecture 09		photorespiration,
Lecture 10		C ₄ pathways;
Lecture 11		Crassulacean acid metabolism;
Lecture 12		Factors affecting CO ₂ reduction.
Lecture 13		Unit 3: Carbohydrate metabolism
Lecture 14	Unit 4: Carbon Oxidation	Glycolysis.
Lecture 15		Fate of pyruvate, regulation of glycolysis.
Lecture 16		Oxidative pentose phosphate pathway.
Lecture 17		Oxidative decarboxylation of pyruvate.
Lecture 18		Regulation of PDH, NADH shuttle.
Lecture 19		TCA cycle.
Lecture 20		Amphibolic role, anaplerotic



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		reactions, regulation of the cycle.
Lecture 21		Mitochondrial electron transport.
Lecture 22		Oxidative phosphorylation.
Lecture 23		Cyanide-resistant respiration.
Lecture 24		Factors affecting respiration.
Lecture 25		Revision
Lecture 26		Revision

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT BIOTECHNOLOGY(CC14T)

Session: 2021-2022 (JAN'2022 –JUNE'2022)

Semester: VI (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit -1: Plant Tissue Culture	Historical perspective.
Lecture 02		Composition of media.
Lecture 03		Nutrient and hormone requirements (role of vitamins and hormones).
Lecture 04		Totipotency; Organogenesis.
Lecture 05		Embryogenesis (somatic and zygotic).
Lecture 06		Protoplast isolation, culture and fusion.
Lecture 07		Tissue culture applications (micropropagation, androgenesis, virus elimination).
Lecture 08		Secondary metabolite production.
Lecture 09		Haploids, triploids and hybrids.
Lecture 10		Cryopreservation; Germplasm Conservation).
Lecture 11	Unit- 2: Recombinant DNA technology	Restriction Endonucleases - History, Types I-IV.
Lecture 12		Restriction Endonucleases biological role and application.
Lecture 13		Restriction Mapping (Linear and Circular).
Lecture 14		Cloning Vectors - Prokaryotic pUC 18 and pUC19.
Lecture 15		- pBR322, Ti plasmid, BAC.
Lecture 16		Lambda phage.
Lecture 17		M13 phagemid.
Lecture 18		Cosmid, Shuttle vector.
Lecture 19		Eukaryotic Vectors (YAC).
Lecture 20	Unit- 3:Gene Cloning	Recombinant DNA.
Lecture 21		Bacterial Transformation and selection of recombinant clones.
Lecture 22		PCR mediated gene cloning.

Handwritten signature and stamp of the Principal, Narajole Raj College, Paschim Medinipur, PIN-721211. The stamp is circular and contains the college's name and address.



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Lecture 23		Gene Construct; construction of genomic and cDNA libraries.
Lecture 24		Screening DNA libraries to obtain gene of interest by genetic selection; complementation, colony hybridization.
Lecture 25		PCR.
Lecture 26		Revision
Lecture 27		Revision

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Department of Bengali

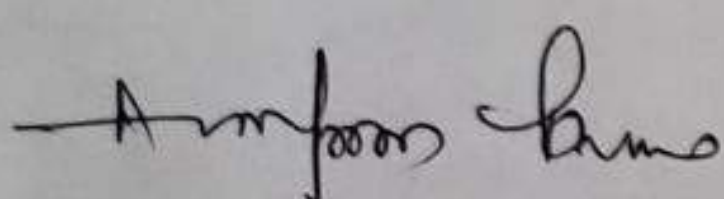
Notice

Dated:08.01.2022

Notice is hereby given that a meeting of Dept. of Bengali will be held on 10.01.2022 (Monday) at 7.00 PM through video conferencing to discuss the following agenda. Please make it convenient to attend the meeting.

Agenda

1. To discuss regarding academic progress of the department in the odd semesters of the session 2021-
2. To follow up the departmental administrative activities.
3. To prepare the names of paper setters and examiners for internal assessments of semester V examinations in the session 2021-22 and to discuss on other examination related issues
4. Academic Audit Report and AQAR related issues.
5. To discuss regarding progress of publication of departmental Journal 'Prayas'-2021-2022.
6. Miscellaneous (if any) with the permission of the chair.



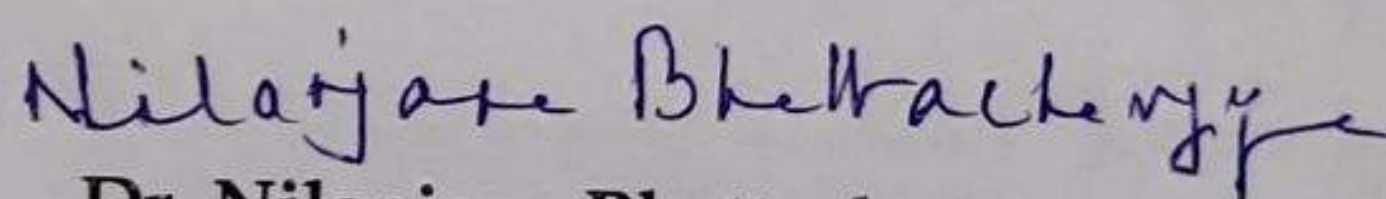
Dr. Anupam Parua

Signature of the Principal

Principal

Narajole Raj College

Narajole, Pin-721 211



Dr. Nilanjana Bhattacharyya

Signature of the Convenor

Copy forwarded for information and necessary action to:

(1) Dr. Sadhan Ch. Pandit

(2) Dr. Dipak Shom

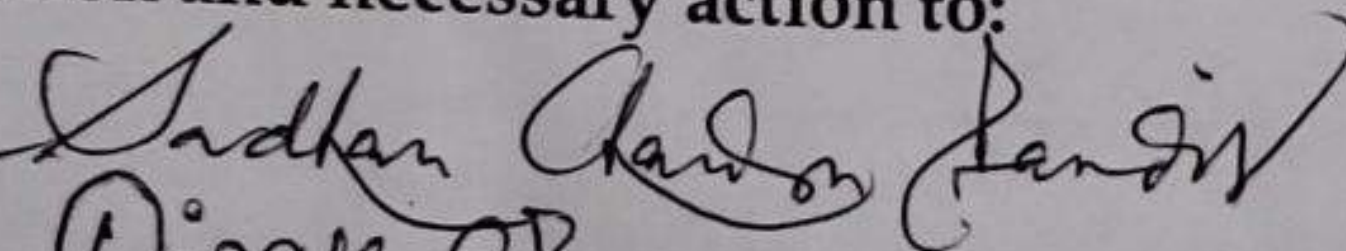
(3) Prof. Avijit Chakraborty

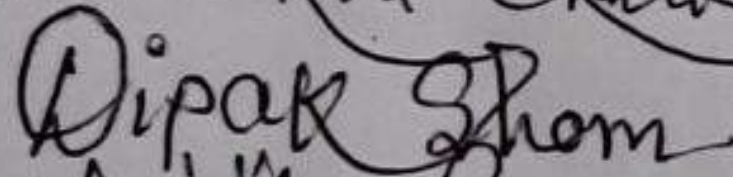
(4) Prof. Madhumita Addya

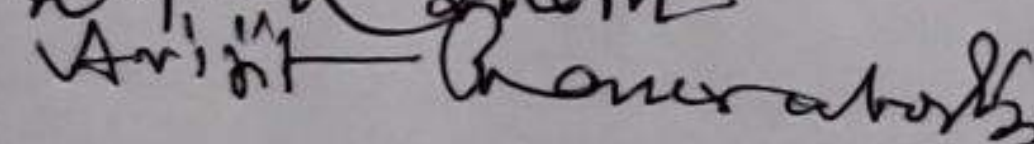
(5) Prof. Sanat Pan

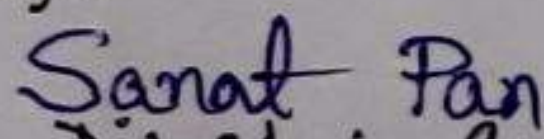
(6) Prof. Dipashri Roy

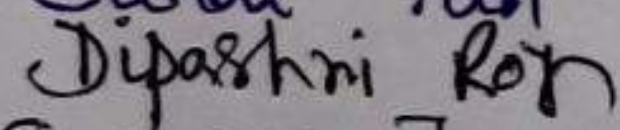
(7) Prof. Goutam Jana

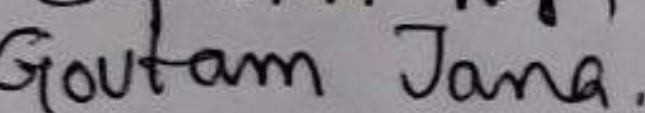












NB; MEETING LINK WILL BE SHARED IN DUE COURSE THROUGH CONCERNED WHATSAPP GROUP.

নং / No.	রেজল্যুশন / Resolution Adopted
	Meeting date: 10/01/22
1.	Uniforms issue
2.	Nilanjana Bhattacharyya
3.	Arjit Chaurabhai
4.	Dipak Ghosh
5.	Sadhan Anon Sanil
6.	Sanat Pan
7.	Dipashri Roy
8.	Goutam Jana.



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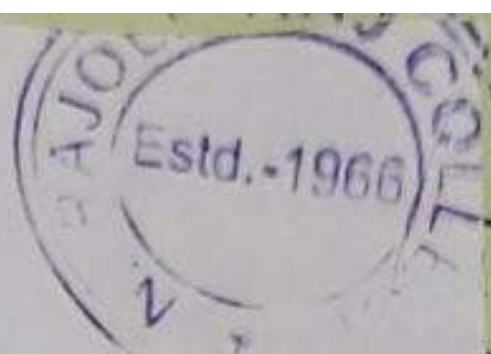
Proceedings of the meeting of the Department of Bengali held on 10/01/2022
(Monday) at 8.30pm in Google meet with meeting id: with meeting id:
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Meeting 02 of the Academic Session 2021-22

Meeting of the Department of Bengali commenced with the Principal in the chair, detailed discussions on the items of agenda took place and the following resolutions were adopted:

1. To discuss regarding academic progress of the department in the odd semesters of the session 2021- 22.

Members discussed at length in the odd semesters of the session 2020 -21. Dr. Nilanjana Bhattacharyya mentioned that classes are going on as per planning. Percentage of completion of syllabus is also satisfactory. accordingly.



Proceedings of the meeting of the Department of Bengali held on 10/01/2022
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Meeting 02 of the Academic Session 2021-22

2. To follow up the departmental administrative activities.

HoD, Dr. Nilanjana Bhattacharyya mentioned that all the pending documentation work is going according to plan and department will be complete the documentation process within due time. The following area of work is going now for preservation:

- i. Copies of all End Semester examinations of UG courses has been preserved in departmental drive.
- ii. All the question papers of internal examinations are preserved in departmental folders.
- iii. All the VCC routine are also preserved in departmental folders.
- iv. Copies of front pages of evaluated answer scripts are also preserved by the department.
- v. Excel sheets with marks of all completed examinations are stored in the department as well as to the examiners.

3. To prepare the names of paper setters and examiners for internal assessments of semester V examinations in the session 2021-22 and to discuss on other examination related issues.

Members discussed at length regarding preparation of list of paper setters and examiners and the list is annexed below:

Paper	Name of the paper setter	Name of the Examiner
C11T	Prof. Avijit Chakraborty	Prof. Avijit Chakraborty
C12T	Dr. S. C. Pandit	Dr. S. C. Pandit
DSE1TH	Dr. Dipak Shom	Dr. Dipak Shom
DSE2TH	Dr. Nilanjana Bhattacharyya	Dr. Nilanjana Bhattacharyya
GE1TG	Prof. D. Roy	Prof. D. Roy
DSE1TG	Prof. S.Pan	Prof. S.Pan
SEC3TG	Prof. Avijit Chakraborty	Prof. Avijit Chakraborty



Proceedings of the meeting of the Department of Bengali held on 10/01/2022
(Monday) at 8.30pm in Google meet with meeting id: with meeting id:
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Meeting 02 of the Academic Session 2021-22

Here, Dr. Dipak Shom, convenor, Academic Committee, discussed on other examination related issues which are resolved at Academic Committee meeting which are as follows:

- i. Prepared question papers will be sent to departmental domain email Id in due time.
- ii. Examinations will be of 20 marks for 75 marks papers and 10 marks for 50 marks papers.
- iii. For twenty marks papers eight questions will be given to the students and students will attempt any four of them and for ten marks papers four options will be given and students will attempt any two of them. Each will be of five marks.

4. Academic Audit Report and AQAR related issues.

HoD Dr. Nilanjana Bhattacharyya informed the members that all the documents required for AQAR are sent to IQAC for the purpose of submission of the same.

5. To discuss regarding progress of publication of departmental Journal 'Prayas'-2021-2022.

Prof. Avijit Chakraborty informed the members that progress of publication of Prayas - 2022 is going on. This year due to continuation of lockdown the e edition of the journal is planned. Write ups are collected from the departmental faculties and students and from invited writers as well. The tentative date of publication of the journal is 21st February, 2022. Here, he added that the yearly programme of observation of international mother language day will also be arranged by the department in befitting manner.



Proceedings of the meeting of the Department of Bengali held on 10/01/2022
(Monday) at 8.30pm in Google meet with meeting id: with meeting id:
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Meeting 02 of the Academic Session 2021-22

As no other business left, meeting ended with reciprocal vote of thanks to and from the chair.

(Dr. Anupam Parua)
Chairman

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Academic Committee Notice

19-07-2022

All the members of the Academic committee are hereby requested to attend a meeting on 26/07/22 at 3.00 PM to discuss the following agenda.

Agenda:

- 1) Read and confirm the previous resolution.
- 2) To discuss about the value added course, Add-on Course in the session 2022-2023.
- 3) To discuss about the Project work of ENVS in the session of 2022-2023.
- 4) To discuss about the commensment of class
- 5) Misc (With the permission of the chair)

Dipak Shom
Dr. Dipak Shom
Convener/ Academic
Committee

Members :-

1. Dr. N. Bhattacharyya *Nilanjana Bhattacharyya*
2. Dr. R. Debnath *R. Debnath*
3. Prof. P. P. Mondal *Pragnya Pramita Mondal*
4. Prof. N. Bhakat
5. ~~Dr.~~ Arif Iqbal Mallick *Arif*
6. Prof. Anustup Chattopadhyay
7. Dr. Md. Aziz
8. Dr. Mangal Kr, Nayak *Mangal*
9. Prof. Subhasis Das
10. Dr. Poulami Adhikari Mukherjee *P. Mukherjee*
11. Dr. Tanuka Acharya *Tanuka Acharya*
12. Dr. Akul Rana *Akul*
13. Dr. Parimal Das *Parimal*
14. Prof. Mosibul Ali *Mosibul Ali*
15. Dr. Atanu Nanda *A. Nanda*
16. Prof. Barun Rout *Barun Rout*

Convener
Academic Committee
Narajole Raj College
Narajole, PIN-721211



Attested
MA 25/07/24
Principal
Narajole Raj College
Narajole, Pin-721 211

মিটিং রেজল্যুশন বহি

MEETING RESOLUTION BOOK

মিটিং নং/ Meeting No.	
তারিখ/ Date	26-07-2022

উপস্থিত সভ্যগণের নাম
NAME OF MEMBERS PRESENT

স্থান/ Place	Vice-principal Chamber
সময়/ Time	2.30 P.M

- ১। ১. Ranajit K. Khalua.
- ২। ২. Dipak Ghosh
- ৩। ৩. Paschim Saha.
- ৪। ৪. Rajendra Debnath
- ৫। ৫. Tanu Achary
- ৬। ৬. Akul Raul
- ৭। ৭. Nandita Bhakat

- ১। ৮. Arif Sybil Mallick
- ২। ৯. Saheb Ali
- ৩। ১০. Subhasis Das
- ৪। ১১. Nilay Bhattacharya
- ৫। ১২. Soumen Adhikary Mukherjee
- ৬। ১৩. A. Chattopadhyay
- ৭। ১৪. S. Debroy

- ১৫। ১৫. Kalyan Kumar Nayak
- ১৬। ১৬. Soumen Bisoi
- ১৭। ১৭.
- ১৮। ১৮.
- ১৯। ১৯.
- ২০। ২০.
- ২১। ২১.



রেজল্যুশন/ Resolution Adopted



Proceedings of the meeting of the Academic Committee held on 26-07-2022 at 2.30 pm

Venue: Vice-Principal's Chamber

The meeting was chaired by Dr. Ranajit Kumar Khalua, the Vice-Principal of the College and Chairman of the Academic Committee.

Detailed discussions took place on the agenda ongoing academic activities of the college and the following resolutions were adopted:

1. The resolutions of the previous meeting dated 29/04/2022 were read and confirmed without any change.
2. The convenor informed the house that IQAC Co-ordinator proposed to conduct some ADD On/ Value Added/ Certificate courses in our college. After detailed discussion, the following courses approved unanimously.

List of Add on / Value Added / Certificate / Innovative Hub Course
(Session : 2022 – 2023) [01.07.2022 – 30.06.2023]
Narajole Raj College, Narajole, Paschim Medinipur

ADD ON COURSES

Sl. No.	Title	Course Code	Department	Course Co-ordinators	Course duration	Intake capacity
1	Add on Course on Medicinal Plants: Conservation, Propagation and Uses.	AOCMPCPU	Botany	Nandita Bhakat	12.11.2022-30.06.2023	35
2	Add on Course on Application of Chemdraw Software for Scientific Drawing.	AOCACSSD	Chemistry	Dr. Soumen Bisoi	22.12.2022 - 13.06.2023	20


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3	Add on Course on Ancient Indian History and Culture.	AOCAIHC	History, Philosophy and Sanskrit	Dr. Bhakti Pada Jana, Dr. Rabindranath Maity and Singray Tudu	02.03.2023 -23.03.2023	115
4	Add on Course on Functional Bengali and Grammar.	AOCFBG	Bengali	Dr. Dipak Shom	23.03.2023 - 27.06.2023	30
5	Add on Course on Indian Constitution & Polity.	AOCICP	Political Science	Prasenjit Senapati and Supen Sarkar	03.05.2023-30.06.2023	25
6	Add on Course on Archival Research .	AOCAR	History	Dr. Mangal Kumar Nayak and Baisali Guha	22.05.2023 -30.06.2023	30
7	Add on Course on Water Resource Management.	AOCWRM	Geography	Ishita Biswas	26.05.2023 -27.06.2023	15
8	Add on Course on English Writing Skills.	AOCEWS	English	Pragna Paramita Mondal	01.06.2023 -30.06.2023	50
9	Add on Course on Household Chemistry (Grihasthali rasayanik toirir jonnyo laboratoryte hate kolome prasikkhan).	AOCHC	Chemistry	Dr. Sk Mohammad Aziz and Dr. Soumendu Bisoi	13.06.2023 - 30.06.2023	15
10	Add on Course on "FORTRAN Programming and ORIGINLAB for Scientific Data Analysis".	AOCFPOSDA	Physics	Dr. Arif Iqbal Mallick and Dr. Avradip Pradhan	13.06.2023-30.06.2023	10



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	on Yoga & Meditation.				01.02.2023	
2	Value Added Course on Human Rights Education.	VACHRE	Political Science	Dr. Rajasree Debnath	25.08.2022 - 30.11.2022	25
3	Value Added Course on Creative Writing in Bengali.	VACCWB	Bengali	Dr. Nilanjana Bhattacharyya	09.09.2022 - 03.01.2023	30
4	Value Added Course on Add on Course on ARC GIS Basics.	AOCAGB	Geography	Subhasis Das	24.12.2022 - 22.06.2023	15

5	Value Added Course on the Study of Biodiversity and its impact on human health.	VACSBHH	Botany, Zoology, Physiology	Prof. Nandita Bhukut	20.02.2023 - 29.06.2023	30
6	Value Added Course on Basic Computer Training for SC and ST Students.	VACBCTSSS	Technology Sub-Committee	Dr. Avradip Pradhan	28.02.2023 - 07.04.2023	20
7	Value Added Course on Basic Mathematics	VACBM	Mathematics	Shilpa Patra	15.05.2023 - 30.06.2023	30
8	Value Added Course on Spoken Sanskrit.	VACSS	Sanskrit	Dr. Uttam Kumar Singha and Tumpa Jana	17.05.2023 - 31.05.2023	115
9	Value Added Course on Ethics & Value Education .	VACEVE	Philosophy & Education	Dr. Tanuka Acharya	17.05.2023 - 30.06.2023	45
10	Value Added Course on Basic Computer Skills for female students.	VACBCSFS	Technology Sub-Committee	Dr. Shreyasi Jana	20.05.2023- 30.06.2023	15
11	Value Added Course on Women's Health and Nutrition.	VACWHN	Physiology & Zoology	Dr. Parimal Dua and Dr. Poulami Adhikary Mukherjee	23.05.2023- 28.06.2023	30
12	Value Added Course on General English for Competitive Exams.	VACGECE	English	Pragna Paramita Mondal	01.06.2023 - 30.06.2023	50
13	Value Added Course on LED Based Device Production.	VACLBDP	Physics Department	Dr. Tapanendu Kamilya	02.06.2023 - 27.06.2023	15
14	Value Added Course on Vedic Culture and Karmakanda.	CCVCK	Sanskrit	Asis Bhattacharya and Barnali Banerjee	12.06.2023 - 30.06.2023	100
Total						570
1	Certificate Course on English as a Second Language.	CCESL	Language Lab	Pragna Paramita Mondal	01.06.2023 30.06.2023	50
Total						50



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Total						50
1	Innovative Hub on Techniques for Mushroom Cultivation.	AOCTMC	Botany	Sanjay Kumar Dutta	03.12.2022 - 16.06.2022	30
Total						30
Grand Total (No. of Total Course 10+14+1+1 = 26)						995

It is further resolved that the Course Co-coordinator take approval of Department Committee to form the BOS as per UGC guidelines of VAC/ Add on/ certificate course and each course will be of 30 hours duration. The syllabus of these courses will be designed by the concerned department and it is to be approved by the BOS. An MCQ examination will be held at the end of each course and certificate will be provided to the successful candidates.

3. It is resolved that the project work of the paper AECC-2(ENVS-Environmental Science) is supervised by the following teachers:

- Prof. Bangomoti Hansda
- Dr. Prithwi Ghosh
- Prof Ishita Biswas
- Dr. Parimal Dua
- Prof. Nandita Bhakat
- Prof. Subhasis Das

The Project work of other departments will be supervised by the concerned departmental teacher and it is to be resolved in the departmental meeting.

4. After brief discussion, it was unanimously resolved that the class of the 5th Semester will begin on and from 16/08/2022 in offline mode.

As there was no further agenda for discussion, the meeting ended with a reciprocal vote of thanks to and from the Chair.

Dipak Ghosh
Convenor

Convenor
Academic Committee
Narajole Raj College
Narajole, PIN 721211



Rahma
Vice Principal

Vice-Principal
Narajole Raj College
P.O.- Narajole
Dist.- Paschim Medinipur, 7



Ahmed
MA
30/04/24
Principal
Narajole Raj College
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Department of Bengali

Notice

Dated: 11.07.2022

Notice is hereby given that a meeting of Dept. of Bengali will be held on 19.07.2022 (Tuesday) at 2:00 PM in the office chamber of the Vice-Principal to discuss the following agenda. Please make a convenient to attend the meeting.

Agenda:

1. To read and confirm the proceedings of the meeting dated 28.05.2022.
2. Hand over the Charge of Head of the Department in the session 2022-23.
3. To discuss regarding Academic preparedness of the department for the coming session 2022-23.
4. Miscellaneous (if any) with the permission of the Chair.

Ranajit Kumar Khaitan
 Dr. Ranajit Kumar Khaitan
 Vice - Principal

Nilanjana Bhattacharya
 Dr. Nilanjana Bhattacharya
 Convent

Vice-Principal
 Narajole Raj College
 P.O. Narajole,
 Dist. Paschim Medinipur-721211



Members:

- (1) Dr. Sudhan Ch. Pandit *Sudhan Chandra Pandit*
- (2) Dr. Dipak Saha *Dipak Saha*
- (3) Prof. Avijit Chakraborty *Avijit Chakraborty*
- (4) Prof. Madhumita Addya *Madhumita Addya*
- (5) Prof. Sanat Pan *Sanat Pan*
- (6) Prof. Dipakshi Roy
- (7) Prof. Goutam Jana *Goutam Jana*



Attested
MO
 30/07/24

Principal
 Narajole Raj College
 Narajole, Pin-721 211



Proceedings of the meeting of the Department of Bengali held on 19.07.2022
(Tuesday)
Meeting 01 of Academic session 2022-23

The meeting was chaired by Dr. Ranajit Kumar Khalua, the Vice - Principal of the College and Chairman of the concerned Departmental Committee. Detailed discussions took place on the noted agenda and the following resolutions were adopted:

1. Proceedings of the meeting dated 28.06.2022 were read out and confirmed without any amendment.
2. Members discussed at length regarding rotation of Headship of the department. After careful discussion, keeping in view the ensuing NAAC visit, members unanimously decided not to rotate Headship at this moment. So, Dr. Nilanjana Bhattacharyya, the existing Head of the department is requested to carry on her responsibilities as usual.
3. Dr. Ranajit Kumar Khalua, Hon. Vice Principal of the college enquired about the preparedness of the department for the session 2022-23 and members confirm their readiness regarding the matter. The preparation of routine, distribution of syllabus and all the teaching plans are done by the teachers. Dr. Khalua expressed his satisfaction and proposed to utilize the Google class room intensively in this session. Besides, he advised to continue other academic services as previous years. House affirmed with him.

As no other business left, meeting ended with a reciprocal vote of thanks to and from the Chair.


Dr. Ranajit Kumar Khalua
(Chairman)



Attested


30/07/24

Principal
Narajole Raj College
Narajole, Pin-721 211



মিটিং রেজল্যুশন বই

SCHOOL

MEETING RESOLUTION BOOK

মিটিং-এর ক্রমিক সংখ্যা / Serial No. of Meeting : 15

মিটিং এর তারিখ / Date of Meeting : 09.12.2022

মিটিং এর স্থান / Venue of Meeting : online

মিটিং এর সময় / Time of Meeting : 8:00 p.m.

উপস্থিত সভ্যগণের নাম / Name of Members Present		
১/১.	Bhaha	
২/২.	Bani Langan De	১৭/17
৩/৩.	Swatinath Chakraborty	১৮/18
৪/৪.	Nibajana Bhattacharyya	১৯/19
৫/৫.	Dipak Ghosh	২০/20
৬/৬.	Sadhan Ch. Pandit	২১/21
৭/৭.		২২/22
৮/৮.		২৩/23
৯/৯.		২৪/24

রেজল্যুশন | RESOLUTIONS ADOPTED

১. মেম্বর ০৯. ১২. ২০২২ তারিখ, বুধবার, পত্রী ৮-৯ নং সভাপতির সভাপতিত্বে প্রথম সভাপতিত্ব পরিষদ Board of Studies-এর অনুষঙ্গিক হোয়াটসঅপ গ্রুপে video Conference-এ সভাপতির উপস্থিতিতে এই অনুষঙ্গিক সভায় সভাপতির উদ্বোধন ও ড. সাজিদ হুসাইন প্রাচীর সনাক্তি, অসম্পূর্ণ সনাক্তি করা হয় এবং সভার কার্য শুরু হয়।

১. সভায় সভাপতির Resolutions পাঠ করা হয় এবং তা সনাক্তিকৃত অনুমোদিত হয়।

২. সভায় ২০২১-২০২২ শিক্ষক প্রথম সভাপতিত্ব পরিষদ প্রথম সনাক্তি (M.A. 1st Sem.-2022) ও দ্বিতীয় সনাক্তি (M.A. 3rd Sem. 2022)-২০২২ এর Paper-Setters (Internal & External), Examiners, Moderators, Reviewers & Scrutinizer-এর নাম নির্ধারণ করা হয় এবং তা সনাক্তিকৃত হইতে হয়।

* M.A. 1st Sem. Exam. -2022

Paper	Super-Setter (Internal)	Paper-setter (External)	Examiners
BENG-101	Dr. Dipak Ghosh	Dr. Nirmal Kr. Bera Dept. of Bengali Sahang S.K. Mahavidyalaya	Dr. Nirmal Kr. Bera Dept. of Bengali Sahang S.K. Mahavidyalaya
BENG-102	Dr. Sadhan Ch. Pandit	Dr. Bipal Kr. Mandal Dept. of Bengali Raja N.L. Khan Women's College, Midnapore.	Dr. Dipak Ghosh
BENG-103	Dr. Sadhan Ch. Pandit	Dr. Sujoy Kr. Maity Dept. of Bengali Raja N.L. Khan Women's College, Midnapore	Dr. Sadhan Ch. Pandit
BENG-104	Dr. Nibajana Bhattacharyya	Dr. Saradabrata Laha Dept. of Bengali Raja N.L. Khan Women's College, Midnapore	Dr. Nibajana Bhattacharyya





RESOLUTIONS ADOPTED

Paper	Internal Paper-Setter	External Paper-Setter	Examiner
BI NG-105	* Avijit Chakraborty	Dr. Haranar Babaman Dept. of Bengali Atal R.S. Mahandyalan Kochin Medinipur	Avijit Chakraborty

* M.A. 3rd Sem. Exam. - 2022

Paper	Paper-setter (Internal)	Paper-setter (External)	Examiners
BENG-301	Dr. Sachon Ch. Pandit	Dr. Amar Adikari Dept. of Bengali Kharagpur College	Dr. Sachon Ch. Pandit
BENG-302	Dr. Nilanjana Bhattacharya	Dr. Rita Sil Dept. of Bengali Ganabeta College Kochin Medinipur	Dr. Nilanjana Bhattacharya
BENG-303	Dr. Dipak Shom	Dr. Amar Kr. Saha Dept. of Bengali Midnapore College (Autonomous)	Dr. Dipak Shom
BENG-304 (CBCS)	Avijit Chakraborty	Dr. Santanu Dolai Dept. of Bengali Egra S.S.B. College Purba-Medinipore	Avijit Chakraborty
BENG-305 (Project Paper)	=	=	① Dr. Bipul Kr. Mandal (External) Raja N. L. Khan Women's College, Midnapore ② Dr. Amar Adikari (External) Kharagpur College ③ Dr. Nilanjana Bhattacharya (Internal) ④ Dr. Dipak Shom (Internal)

* M.A. 1st & 3rd Sem. Exam. - 2022 (Moderators) :

Papers BENG-101, 102, 103, 104, 105 & BENG-301, 302, 303, 304 (CBCS)	① Prof. Bani Ranjan De (External) Dept. of Bengali, Vidyasagar University ② Prof. Srujanath Chakraborty (External) Former In-charge, Dept. of Bengali, Vidyasagar University, Midnapore. ③ Dr. Nilanjana Bhattacharya (Internal) ④ Dr. Dipak Shom (Internal)
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Principal
Narajole Raj College
Narajole, Pin-721 211

AH...
30/04/24



মিটিং রেজল্যুশন বই

SCHOOL

MEETING RESOLUTION BOOK

মিটিং এর ক্রমিক সংখ্যা / Serial No. of Meeting :

মিটিং এর তারিখ / Date of Meeting :

মিটিং এর স্থান / Venue of Meeting :

মিটিং এর সময় / Time of Meeting :

উপস্থিত সভ্যগণের নাম / Name of Members Present

১/১	৯/৯	১৭/১৭
২/২	১০/১০	১৮/১৮
৩/৩	১১/১১	১৯/১৯
৪/৪	১২/১২	২০/২০
৫/৫	১৩/১৩	২১/২১
৬/৬	১৪/১৪	২২/২২
৭/৭	১৫/১৫	২৩/২৩
৮/৮	১৬/১৬	২৪/২৪

ক্রমিক সংখ্যা
Serial No.

রেজল্যুশন / RESOLUTIONS ADOPTED

* M.A. 1st & 3rd Sem. - 2022 Examination — Reviewers :—

① Dr. Sujoy Kr. Maity → M.A. 1st Sem. Exam - 2022
 Dept. of Bengali
 Raja N.L. Khan Womens' College
 Paschim Medinipur

② Dr. Biswaranjan Ghorai → M.A. 3rd Sem. Exam - 2022
 Dept. of Bengali
 Pasokura Banamali College
 Purba Medinipur

* M.A. 1st & 3rd Sem. - 2022 (Scrutinizers) :—

- All Internal Teachers :
- ① Dr. Nilanjana Bhattacharyya
 - ② Dr. Sadhan Ch. Pandit
 - ③ Dr. Bipak Ghosh
 - ④ Arigit Chakraborty

Attested
 MO 20/04/24



Principal
 Narajole Raj College
 Narajole, Pin-721 211

৩। সভার অঙ্গীকারবদ্ধতা অনুসারে, নিম্নলিখিত বিধিমালা অনুসরণে Rules & Regulations অনুসরণে পূর্ণ Question Pattern নির্ধারিত ফর্মের মাধ্যমে প্রস্তুতকৃত প্রশ্নপত্রের প্রকরণ বোর্ডে প্রাপ্ত হওয়া হলে নিম্নলিখিত প্রকরণে উল্লিখিত Board of Moderators নির্ধারিত প্রশ্ন প্রকরণ Moderation প্রকরণ হইবে।



রেজল্যুশন | RESOLUTIONS ADOPTED

অধ্যয়নমূলক জাতির স্মরণ ২৪ নং, M.A. (Bengali) 1st Sem. & 3rd Sem. - 2022 - এর Internal Assessment বিজ্ঞানসম্মত বিধিবিধানের নিয়ম অনুযায়ী মতামত ২মূহ।

মতামত এবং জোর জামানতের ক্ষেত্রে যা এখন সভাপতি প্রধানের প্রধান কার্যালয়ে মজুরি করে কোর ২৪।



(স্বাক্ষরিত) *Rhata*
২৪/০৪/২৪ ৩:০৫

Chairman
Examination Cell
PG Board of Studies
Narajote Raj College
Paschim Medinipur

AA-240
20/04/24



Principal
Narajote Raj College
Narajote, Pin-721 211



MEETING RESOLUTION BOOK

মিটিং-এর ক্রমিক সংখ্যা / Serial No. of Meeting: 16

মিটিং এর তারিখ / Date of Meeting: 22/5/2023

মিটিং এর স্থান / Venue of Meeting: online

মিটিং এর সময় / Time of Meeting: 8.00pm

উপস্থিত সভ্যগণের নাম / Name of Members Present

১/1	Shahu	১/9	১৭/17
২/2	Bani Ranjan De	১০/10	১৮/18
৩/3	Sreatinath Chatterborty	১১/11	১৯/19
৪/4	Dipak Shom	১২/12	২০/20
৫/5	Sadhan Chatterborty	১৩/13	২১/21
৬/6		১৪/14	২২/22
৭/7		১৫/15	২৩/23
৮/8		১৬/16	২৪/24

ক্রমিক সংখ্যা
Serial No.

রেজল্যুশন | RESOLUTIONS ADOPTED

১) ২২.৫.২০২৩ তারিখ, সন্ধ্যায়, প্রায় ৮.০০টার মধ্যে অনলাইন ভিত্তিতে
 কলেজ অধ্যক্ষের ডায়েরি Board of Studies-এর অনলাইন সভায়
 জয়েন্ট ভার্চুয়াল Video Conference-র মাধ্যমে (meeting link
<https://meet.google.com/cpd-muwf-fot>) অনুষ্ঠিত হয়। যে
 অনলাইন সভায় অধ্যক্ষ ডায়েরি ড. সাদান চক্রবর্তী, অধ্যাপক
 মহোদয়গণের অংশ গ্রহণ করে এবং সভায় আলোচনা করা হয়।

১) সভায় গৃহীত Resolutions পাঠ করা হয় এবং তা স্বাক্ষরিত করা
 করা হয়।

২) সভায় ২০২২-২৩ অক্টোবর এবং অধ্যক্ষের ডায়েরি ফিল্ড
 মডারেটর ও টুও মোডারেটর পপুলার - ২০২৩ (৩০ Paper-setters/
 External & Internal), Examiners (External & Internal)
 Moderators Reviewers এর নির্বাচিত হয় এবং তা
 স্বাক্ষরিত করা হয়।

* M. A. 2nd Semester Examination (Final) - 2023 :

Refers	Internal Paper-setters	External Paper-setters	Examiners
BNS 201	Dr. Dipak Shom	Dr. Nirmal Bera	Dr. Nirmal Bera (External)
BNS 202	Dr. Sadhan Ch. Pandey	Dr. Kopotakshi Seta Chhatra R.S. Mahendrayaya	Dr. Sadhan Ch. Pandey Sabang S.K. Mahendrayaya



Principal: Dr. Nilanjana Bhattacharya
 Narajole College
 Tamralipta Mahendrayaya
 Dr. Paramesh Acharya
 Dr. Nilanjana Bhattacharya

রেজল্যুশন / RESOLUTIONS ADOPTED

	Internal Paper-setters	External Paper-setters	Examiners
BN 204 (CBCS)	Avijit Chakraborty	Dr. Saradabrata Laha Raja N.L. Khan Women's College, Midnapore	Avijit Chakraborty
BN 205 (Project Paper)	—	—	1. Amar Adikari, Kharagpur (External) 2. Dr. Nilanjana Bhattacharya (Internal)
* M.A. 4th Semester Examination (Final) - 2023 :			
BN 401	Avijit Chakraborty	Dr. Santanu Dhal Egra S.S.B. Mahavidyalaya Egra, Purba Medinipur	Avijit Chakraborty
BN 402	Dr. Dipak Shom	Dr. Sujoy Maity Raja N.L. Khan Women's College, Midnapore	Dr. Dipak Shom
BN 403	Dr. Nilanjana Bhattacharya	Dr. Ritesh Sil, Sardaha College Dr. Ritesh Sil, Sardaha College	Dr. Nilanjana Bhattacharya
BN 404	Dr. Sadhan Ch. Pandit	Dr. Amar Saha Midnapore College (Autonomous)	Dr. Sadhan Ch. Pandit
BN 405 D (Notak)	Dr. Dipak Shom	Dr. Rajul Mandal Raja N.L. Khan Women's College Midnapore	Avijit Chakraborty
BN 405 F (Kothasankhya)	Dr. Sadhan Ch. Pandit	Dr. Amar Saha Midnapore College (Autonomous)	Dr. Sadhan Ch. Pandit

*** M.A. 2nd & 4th Semester Exam - 2023 Reviewers :**

Paper: BN 201, 202, 203, 204, 205 → Dr. Paramesh Acharya (External)
Tamluk, Mahavidyalaya
Tamluk: Purba Medinipur.

Paper: BN 401, 402, 403, 404, 405 D, 405 F → Dr. Biswaranjan Ghose
Panokra Banamali College
Panokra, Purba Medinipur.
(External)

~~Internal Paper-setters & Examiners for 2023~~
~~External Paper-setters & Examiners for 2023~~

*** M.A. 2nd & 4th Sem. Exam - 2023 Moderators :**

Paper: 201, 202, 203, 204 (CBCS) → ① Prof. Bani Ranjan De (External)
Dept. of Bengali, V. U.

Paper: 401, 402, 403, 404, 405 D, 405 F → ② Prof. Srinath Chakraborty (External)
Former Professor, Dept. of Bengali
Vidyasagar University.

③ Dr. Nilanjana Bhattacharya (Internal)

④ Dr. Dipak Shom (Internal)



Principal
Narajole Raj College
Narajole, Pin-721 211

AMK/20
20/04/24



MEETING RESOLUTION BOOK

মিটিং-এর ক্রমিক সংখ্যা / Serial No. of Meeting :

মিটিং এর তারিখ / Date of Meeting :

মিটিং এর স্থান / Venue of Meeting :

মিটিং এর সময় / Time of Meeting :

উপস্থিত সভ্যগণের নাম / Name of Members Present

১/১	৯/৯	১৭/১৭
২/২	১০/১০	১৮/১৮
৩/৩	১১/১১	১৯/১৯
৪/৪	১২/১২	২০/২০
৫/৫	১৩/১৩	২১/২১
৬/৬	১৪/১৪	২২/২২
৭/৭	১৫/১৫	২৩/২৩
৮/৮	১৬/১৬	২৪/২৪

ক্রমিক সংখ্যা
Serial No.

রেজল্যুশন | RESOLUTIONS ADOPTED

৩) সকল শিক্ষার্থীকে ৩য়, ৪, চতুর্থবারের বিজ্ঞপ্তিমালা Rule & Regulation অনুযায়ী 'Question pattern' নির্ধারিত পদ্ধতিতে প্রস্তুত করার প্রক্রিয়া ত্বরান্বিত করা হবে এবং, নির্ধারিত সময়ের মধ্যে External & Internal paper-setting-এর কাজ শেষ করার অনুরোধ করা হবে PG Board of Moderators নির্ধারিত পদ্ধতিতে Moderation সূত্রে গ্রহণ।

৪) আমন্ত্রণক্রমে আমন্ত্রণ প্রাপ্ত ২য়, ৩য়, M.A. ২nd & 4th Sem.- ২০২৩-২৪ Internal Assessment বিজ্ঞপ্তিমালা বিজ্ঞপ্তিমালা নির্ধারিত পদ্ধতিতে প্রস্তুত করা হবে।

সকলকে আরও কোনও আমন্ত্রণক্রমে বিজ্ঞপ্তিমালা না প্রেরণের অনুরোধ করা হবে।

AA-212
23/04/24



Principal
Narajole Raj College
Narajole, Pin-721 211



Chairman
Examination Cell
PG Board of Studies
Narajole Raj College
Pachin Medinipur

MASTER ROUTINE -SESSION-2022-23-SEMESTER-I, IV, VI (ARTS)

Day	Semester	11.00-11.30	11.30-12.00	12.00-12.30	12.30-1.00	1.00-1.30	1.30-2.00	2.00-2.30	2.30-3.00
Monday	8.00	11th Sem. (1)	11th Sem. (2)	11th Sem. (3)	11th Sem. (4)	11th Sem. (5)	11th Sem. (6)	11th Sem. (7)	11th Sem. (8)
	9.00	11th Sem. (9)	11th Sem. (10)	11th Sem. (11)	11th Sem. (12)	11th Sem. (13)	11th Sem. (14)	11th Sem. (15)	11th Sem. (16)
	10.00	11th Sem. (17)	11th Sem. (18)	11th Sem. (19)	11th Sem. (20)	11th Sem. (21)	11th Sem. (22)	11th Sem. (23)	11th Sem. (24)
	11.00	11th Sem. (25)	11th Sem. (26)	11th Sem. (27)	11th Sem. (28)	11th Sem. (29)	11th Sem. (30)	11th Sem. (31)	11th Sem. (32)
	12.00	11th Sem. (33)	11th Sem. (34)	11th Sem. (35)	11th Sem. (36)	11th Sem. (37)	11th Sem. (38)	11th Sem. (39)	11th Sem. (40)
Tuesday	8.00	11th Sem. (41)	11th Sem. (42)	11th Sem. (43)	11th Sem. (44)	11th Sem. (45)	11th Sem. (46)	11th Sem. (47)	11th Sem. (48)
	9.00	11th Sem. (49)	11th Sem. (50)	11th Sem. (51)	11th Sem. (52)	11th Sem. (53)	11th Sem. (54)	11th Sem. (55)	11th Sem. (56)
	10.00	11th Sem. (57)	11th Sem. (58)	11th Sem. (59)	11th Sem. (60)	11th Sem. (61)	11th Sem. (62)	11th Sem. (63)	11th Sem. (64)
	11.00	11th Sem. (65)	11th Sem. (66)	11th Sem. (67)	11th Sem. (68)	11th Sem. (69)	11th Sem. (70)	11th Sem. (71)	11th Sem. (72)
	12.00	11th Sem. (73)	11th Sem. (74)	11th Sem. (75)	11th Sem. (76)	11th Sem. (77)	11th Sem. (78)	11th Sem. (79)	11th Sem. (80)
Wednesday	8.00	11th Sem. (81)	11th Sem. (82)	11th Sem. (83)	11th Sem. (84)	11th Sem. (85)	11th Sem. (86)	11th Sem. (87)	11th Sem. (88)
	9.00	11th Sem. (89)	11th Sem. (90)	11th Sem. (91)	11th Sem. (92)	11th Sem. (93)	11th Sem. (94)	11th Sem. (95)	11th Sem. (96)
	10.00	11th Sem. (97)	11th Sem. (98)	11th Sem. (99)	11th Sem. (100)	11th Sem. (101)	11th Sem. (102)	11th Sem. (103)	11th Sem. (104)
	11.00	11th Sem. (105)	11th Sem. (106)	11th Sem. (107)	11th Sem. (108)	11th Sem. (109)	11th Sem. (110)	11th Sem. (111)	11th Sem. (112)
	12.00	11th Sem. (113)	11th Sem. (114)	11th Sem. (115)	11th Sem. (116)	11th Sem. (117)	11th Sem. (118)	11th Sem. (119)	11th Sem. (120)
Thursday	8.00	11th Sem. (121)	11th Sem. (122)	11th Sem. (123)	11th Sem. (124)	11th Sem. (125)	11th Sem. (126)	11th Sem. (127)	11th Sem. (128)
	9.00	11th Sem. (129)	11th Sem. (130)	11th Sem. (131)	11th Sem. (132)	11th Sem. (133)	11th Sem. (134)	11th Sem. (135)	11th Sem. (136)
	10.00	11th Sem. (137)	11th Sem. (138)	11th Sem. (139)	11th Sem. (140)	11th Sem. (141)	11th Sem. (142)	11th Sem. (143)	11th Sem. (144)
	11.00	11th Sem. (145)	11th Sem. (146)	11th Sem. (147)	11th Sem. (148)	11th Sem. (149)	11th Sem. (150)	11th Sem. (151)	11th Sem. (152)
	12.00	11th Sem. (153)	11th Sem. (154)	11th Sem. (155)	11th Sem. (156)	11th Sem. (157)	11th Sem. (158)	11th Sem. (159)	11th Sem. (160)
Friday	8.00	11th Sem. (161)	11th Sem. (162)	11th Sem. (163)	11th Sem. (164)	11th Sem. (165)	11th Sem. (166)	11th Sem. (167)	11th Sem. (168)
	9.00	11th Sem. (169)	11th Sem. (170)	11th Sem. (171)	11th Sem. (172)	11th Sem. (173)	11th Sem. (174)	11th Sem. (175)	11th Sem. (176)
	10.00	11th Sem. (177)	11th Sem. (178)	11th Sem. (179)	11th Sem. (180)	11th Sem. (181)	11th Sem. (182)	11th Sem. (183)	11th Sem. (184)
	11.00	11th Sem. (185)	11th Sem. (186)	11th Sem. (187)	11th Sem. (188)	11th Sem. (189)	11th Sem. (190)	11th Sem. (191)	11th Sem. (192)
	12.00	11th Sem. (193)	11th Sem. (194)	11th Sem. (195)	11th Sem. (196)	11th Sem. (197)	11th Sem. (198)	11th Sem. (199)	11th Sem. (200)



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VIDYASAGAR UNIVERSITY



Curriculum for 3 -Year B Sc (HONOURS) in Botany

Under Choice Based Credit System (CBCS)
w.e.f 2017-2018



A.K. Saha
32/04/24

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Narajole, Pin-721 211

VIDYASAGAR UNIVERSITY

B Sc (Honours) in Botany

[Choice Based Credit System]

Year	Semester	Course Type	Course Code	Course Title	Credit	L-T-P	Marks				
							CA	ESE	TOTAL		
Semester-I											
1	I	Core-1		CT1: Algae and Microbiology	6	4-0-0	15	60	75		
				CP1: Algae and Microbiology-Lab		0-0-4					
		Core-2		CT2: Biomolecule and Cell Biology	6	4-0-0	15	60	75		
				CP2: Biomolecule and Cell Biology-Lab		0-0-4					
		GE-1		TBD	6	4/5	15	60	75		
				TBD		2/1					
		AECC-1		English/MIL	2	1-1-0	10	40	50		
		Semester -I: total					20			275	
		Semester-II									
			II	Core-3		CT3: Mycology and Phytopathology	6	4-0-0	15	60	75
	CP3: Mycology and Phytopathology -Lab				0-0-4						
Core-4				CT4: Archegoniate	6	4-0-0	15	60	75		
				CP4: Archegoniate-Lab		0-0-4					
GE-2				TBD	6	4/5	15	60	75		
				TBD		2/1					
AECC-2				ENVS	4		20	80	100		
Semester-II : total					22			325			



Year	Semester	Course Type	Course Code	Course Title	Credit	L-T-P	Marks		
							CA	ESE	TOTAL
2	Semester-III								
	III	Core-5		CT5: Morphology and Anatomy	6	4-0-0	15	60	75
				CP5: Morphology and Anatomy - Lab		0-0-4			
		Core-6		CT6: Economic Botany	6	4-0-0	15	60	75
				CP6: Economic Botany-Lab		0-0-4			
		Core-7		CT7: Genetics	6	4-0-0	15	60	75
				CP7: Genetics -Lab		0-0-4			
		GE-3		TBD	6	4/5	15	60	75
						2/1			
	SEC-1		TBD	2		10	40	50	
	Semester – III : total					26			350
	Semester-IV								
	IV	Core-8		CT8: Molecular Biology	6	4-0-0	15	60	75
				CP8: Molecular Biology -Lab		0-0-4			
		Core-9		CT9: Plant Ecology and Phytogeography	6	4-0-0	15	60	75
				CP9: Plant Ecology and Phytogeography -Lab		0-0-4			
		Core-10		CT10: Plant Systematics	6	4-0-0	15	60	75
				CP10: Plant Systematics-Lab		0-0-4			
		GE-4		TBD	6	4/5	15	60	75
						2/1			
	SEC-2		TBD	2		10	40	50	
	Semester – IV : total					26			350



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Year	Semester	Course Type	Course Code	Course Title	Credit	L-T-P	Marks		
							CA	ESE	TOTAL
3	V	Semester-V							
		Core-11		CT11: Reproductive Biology Angiosperms	6	4-0-0	15	60	75
				CP11: Reproductive Biology Angiosperms -Lab		0-0-4			
		Core-12		CT12: Plant Physiology	6	4-0-0	15	60	75
				CP12: Plant Physiology -Lab		0-0-4			
		DSE-1		TBD	6	4-0-0	15	60	75
						0-0-4			
		DSE-2		TBD	6	4-0-0	15	60	75
						0-0-4			
		Semester –V : total					24		
	Semester-VI								
	VI	Core-13		CT13: Plant Metabolism	6	4-0-0	15	60	75
				CP13: Plant Metabolism -Lab		0-0-4			
		Core-14		CT14: Plant Biotechnology	6	4-0-0	15	60	75
				CP14: Plant Biotechnology-Lab		0-0-4			
		DSE-3		TBD	6	4-0-0	15	60	75
						0-0-4			
		DSE-4		TBD	6	4-0-0	15	60	75
						0-0-4			
		Semester – VI : total					24		
Total in all semester:					142			1900	

CC = Core Course , AECC = Ability Enhancement Compulsory Course , GE = Generic Elective , SEC = Skill Enhancement Course , DSE = Discipline Specific Elective , CA= Continuous Assessment , ESE= End Semester Examination , TBD=To be decided , CT = Core Theory, CP=Core Practical , L = Lecture, T = Tutorial ,P = Practical , MIL = Modern Indian Language , ENVS = Environmental Studies ,



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List of Core Course (CC)

- CC-1: Phycology and Microbiology
- CC-2: Bio-molecules and Cell Biology
- CC-3: Mycology and Phytopathology
- CC-4: Archegoniate
- CC-5: Anatomy of Angiosperms
- CC-6: Economic Botany
- CC-7: Genetics
- CC-8: Molecular Biology
- CC-9: Plant Ecology and Phytogeography
- CC-10: Plant Systematics
- CC-11: Reproductive Biology of Angiosperms
- CC-12: Plant Physiology
- CC-13: Plant Metabolism
- CC-14: Plant Biotechnology

Discipline Specific Electives (DSE)

- DSE-1: Natural Resource Management
- Or
- DSE-1: Biostatistics
- DSE-2: Plant Breeding
- Or
- DSE-2: Stress Biology
- DSE-3: Industrial and Environmental Microbiology
- Or
- DSE-3: Bioinformatics
- DSE-4: Analytical Techniques in Plant Sciences
- Or
- DSE-4: Research Methodology

Skill Enhancement Course (SEC)

- SEC-1: Biofertilizers
- Or
- SEC-1: Floriculture

- SEC-2: Medicinal Botany
- Or
- SEC-2: Mushroom Culture Technology

Generic Electives (GE)

- GE-1: Biodiversity (Microbes, Algae, Fungi and Archegoniate)
- GE-2: Plant Ecology and Taxonomy
- GE-3: Economic Botany and Plant Biotechnology
- GE-4: Plant Anatomy and Embryology
- Or
- GE-4: Plant Physiology and Metabolism



Core Courses(CC)

CC-1: Phycology and Microbiology

Credits 06

C1T: Phycology and Microbiology

Credits 04

Course Contents:

Unit 1: Introduction to microbial world

Microbial nutrition, growth and metabolism. Economic importance of viruses with reference to vaccine production, role in research, medicine and diagnostics, as causal organisms of plant diseases. Economic importance of bacteria with reference to their role in agriculture and industry (fermentation and medicine).

Unit 2: Viruses

Discovery, physiochemical and biological characteristics; classification (Baltimore), general structure with special reference to viroids and prions; replication (general account), DNA virus (T-phage), lytic and lysogenic cycle; RNA virus (TMV).

Unit 3: Bacteria

Discovery, general characteristics; Types-archaeobacteria, eubacteria, wall-less forms (mycoplasma and spheroplasts); Cell structure; Nutritional types; Reproduction-vegetative, asexual and recombination (conjugation, transformation and transduction).

Unit 4: Algae

General characteristics; Ecology and distribution; range of thallus organization; Cell structure and components; cell wall, pigment system, reserve food (of only groups represented in the syllabus), flagella; methods of reproduction; Classification; criteria, system of Fritsch, and evolutionary classification of Lee (only upto groups) and Van – den Hoek et.al(1982); Significant contributions of important phycologists (F.E. Fritsch, G.M. Smith, R.N. Singh, T.V. Desikachary, H.D. Kumar, M.O.P. Iyengar). Role of algae in the environment, agriculture, biotechnology and industry.

Unit 5: Cyanophyta and Xanthophyta

Ecology and occurrence; Range of thallus organization; Cell structure; Reproduction, Morphology and life-cycle of *Nostoc* and *Vaucheria*.

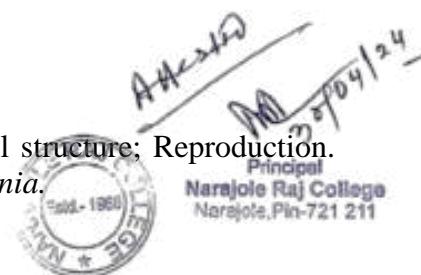
Unit 6: Chlorophyta and Charophyta

General characteristics; Occurrence; Range of thallus organization; Cell structure; Reproduction. Morphology and life-cycles of *Chlamydomonas*, *Volvox*, *Oedogonium*, *Coleochaete*, *Chara*.

Evolutionary significance of *Prochloron*.

Unit 7: Phaeophyta and Rhodophyta

Characteristics; Occurrence; Range of thallus organization; Cell structure; Reproduction. Morphology and life-cycles of *Ectocarpus*, *Fucus* and *Polysiphonia*.



(Practical)**Microbiology**

1. Electron micrographs/Models of viruses – T-Phage and TMV, Line drawings/ Photographs of Lytic and Lysogenic Cycle.
2. Types of Bacteria to be observed from temporary/permanent slides/photographs. Electron micrographs of bacteria, binary fission, endospore, conjugation, root Nodule.
3. Gram staining.
4. Endospore staining with malachite green using the (endospores taken from soil bacteria).
5. Study of bacteria from root nodules/Curd sample.

Phycology

Study of vegetative and reproductive structures of *Nostoc*, *Chlamydomonas* (electron micrographs), *Volvox*, *Oedogonium*, *Coleochaete*, *Chara*, *Vaucheria*, *Ectocarpus*, *Fucus* and *Polysiphonia*, *Prochloron* through electron micrographs, temporary preparations and permanent slides.

Suggested Readings:

- Lee, R.E. (2008). Phycology, Cambridge University Press, Cambridge. 4th edition.
- Wiley JM, Sherwood LM and Woolverton CJ. (2013) Prescott's Microbiology. 9th Edition. McGraw
- Hill International.
- Kumar, H.D. (1999). Introductory Phycology. Affiliated East-West Press, Delhi.
- 4.Sahoo, D. (2000). Farming the ocean: seaweeds cultivation and utilization. Aravali International, New Delhi.
- Campbell, N.A., Reece J.B., Urry L.A., Cain M.L., Wasserman S.A. Minorsky P.V., Jackson
- R.B. (2008). Biology, Pearson Benjamin Cummings, USA. 8th edition.
- Pelczar, M.J. (2001) Microbiology, 5th edition, Tata McGraw-Hill Co, New Delhi.

CC-2 : Bio-molecules and Cell Biology**Credits 06****C2T : Bio-molecules and Cell Biology****Credits 04****Course Contents:****Unit-1: Biomolecules**

Types and significance of chemical bonds; Structure and properties of water; pH and buffers.

Carbohydrates: Nomenclature and classification; Monosaccharides ; Disaccharides; Oligosaccharides and polysaccharides.



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Lipids: Definition and major classes of storage and structural lipids; Fatty acids structure and functions; Essential fatty acids; Triacyl glycerols structure, functions and properties; Phosphoglycerides.

Proteins: Structure of amino acids; Levels of protein structure-primary, secondary, tertiary and quaternary; Protein denaturation and biological roles of proteins.

Nucleic acids: Structure of nitrogenous bases; Structure and function of nucleotides; Types of nucleic acids; Structure of A, B, Z types of DNA; Types of RNA; Structure of tRNA.

Unit- 2: Bioenergetics

Laws of thermodynamics, concept of free energy, endergonic and exergonic reactions, coupled reactions, redox reactions. ATP: structure, its role as a energy currency molecule.

Unit- 3: Enzymes

Structure of enzyme: holoenzyme, apoenzyme, cofactors, coenzymes and prosthetic group; Classification of enzymes; Features of active site, substrate specificity, mechanism of action (activation energy, lock and key hypothesis, induced - fit theory), Michaelis – Menten equation, enzyme inhibition and factors affecting enzyme activity.

Unit-4: The cell

Cell as a unit of structure and function; Characteristics of prokaryotic and eukaryotic cells; Origin of eukaryotic cell (Endosymbiotic theory).

Unit- 5: Cell wall and plasma membrane

Chemistry, structure and function of Plant cell wall. Overview of membrane function; fluid mosaic model; Chemical composition of membranes; Membrane transport – Passive, active and facilitated transport, endocytosis and exocytosis.

Unit- 6: Cell organelles

Nucleus: Structure-nuclear envelope, nuclear pore complex, nuclear lamina, molecular organization of chromatin; nucleolus. **Cytoskeleton:** Role and structure of microtubules, microfilaments and intermediary filament. **Chloroplast, mitochondria and peroxisomes:** Structural organization; Function; Semiautonomous nature of mitochondria and chloroplast. **Endomembrane system:** Endoplasmic Reticulum – Structure, targeting and insertion of proteins in the ER, protein folding, processing; Smooth ER and lipid synthesis, export of proteins and lipids; Golgi Apparatus – organization, protein glycosylation, protein sorting and export from Golgi Apparatus; Lysosomes

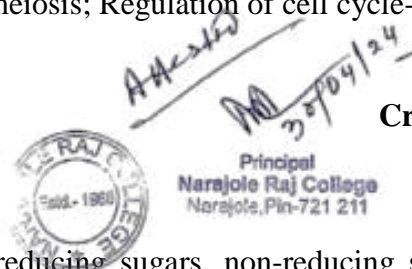
Unit -7: Cell division

Phases of eukaryotic cell cycle, mitosis and meiosis; Regulation of cell cycle- checkpoints, role of protein kinases.

C2P : Bio-molecules and Cell Biology

(Practical)

1. Qualitative tests for carbohydrates, reducing sugars, non-reducing sugars, lipids and proteins.



Credits 02

2. Study of plant cell structure with the help of epidermal peel mount of Onion/*Rhoeo/Crinum*.
3. Demonstration of the phenomenon of protoplasmic streaming in *Hydrilla* leaf.
4. Measurement of cell size by the technique of micrometry.
5. Counting the cells per unit volume with the help of haemocytometer. (Yeast / pollen grains).
6. Study of cell and its organelles with the help of electron micrographs.
7. Cytochemical staining of : DNA- Feulgen Acto carmin and Aceto Orcrin stain and cell wall in the epidermal peel of onion using Periodic Schiff's (PAS) staining technique.
8. Study the phenomenon of plasmolysis and deplasmolysis.
9. Study the effect of organic solvent and temperature on membrane permeability.
10. Study different stages of mitosis and meiosis.

Suggested Readings:

- Campbell, MK (2012) Biochemistry, 7th ed., Published by Cengage Learning
- Campbell, PN and Smith AD (2011) Biochemistry Illustrated, 4th ed., Published by Churchill Livingstone
- Tymoczko JL, Berg JM and Stryer L (2012) Biochemistry: A short course, 2nd ed., W.H.Freeman
- Berg JM, Tymoczko JL and Stryer L (2011) Biochemistry, W.H.Freeman and Company
- Nelson DL and Cox MM (2008) Lehninger Principles of Biochemistry, 5th Edition., W.H. Freeman and Company.
- Karp, G. (2010). Cell Biology, John Wiley & Sons, U.S.A. 6th edition.
- Hardin, J., Becker, G., Skliensmith, L.J. (2012). Becker's World of the Cell, Pearson Education Inc. U.S.A. 8th edition.
- Cooper, G.M. and Hausman, R.E. (2009) The Cell: A Molecular Approach. 5th edition. ASM Press & Sunderland, Washington, D.C.; Sinauer Associates, MA.
- Becker, W.M., Kleinsmith, L.J., Hardin. J. and Bertoni, G. P. (2009) The World of the Cell. 7th edition. Pearson Benjamin Cummings Publishing, San Francisco

CC-3 : Mycology and Phytopathology

Credits 06

C3 T : Mycology and Phytopathology

Credits 04

Course Contents:

Unit- 1: Introduction to true fungi

General characteristics; Affinities with plants and animals; Thallus organization; Cell wall composition; Nutrition; Classification.

Unit- 2: Chytridiomycota and Zygomycota

Characteristic features; Ecology and significance; Thallus organisation; Reproduction; Life cycle with reference to *Synchytrium*, *Rhizopus* .

Unit-3: Ascomycota



General characteristics (asexual and sexual fruiting bodies); Ecology; Life cycle, Heterokaryosis and parasexuality; Life cycle and classification with reference to *Saccharomyces*, *Aspergillus*, *Penicillium*, *Alternaria*, *Neurospora* and *Peziza*.

Unit- 4: Basidiomycota

General characteristics; Ecology; Life cycle and Classification with reference to black stem rust on wheat *Puccinia* (Physiological Specialization), loose and covered smut (symptoms only), *Agaricus*; Bioluminescence, Fairy Rings and Mushroom Cultivation with special reference to Oyster Mushroom..

Unit- 5: Allied Fungi

General characteristics; Status of Slime molds, Classification; Occurrence; Types of plasmodia; Types of fruiting bodies.

Unit- 6: Oomycota

General characteristics; Ecology; Life cycle and classification with reference to *Phytophthora*, *Albugo*.

Unit -7: Symbiotic associations

Lichen – Occurrence; General characteristics; Growth forms and range of thallus organization; Nature of associations of algal and fungal partners; Reproduction; Mycorrhiza-Ectomycorrhiza, Endomycorrhiza and their significance.

Unit- 8: Applied Mycology

Role of fungi in biotechnology; Application of fungi in food industry (Flavour & texture, Fermentation, Baking, Organic acids, Enzymes, Mycoproteins); Secondary metabolites (Pharmaceutical preparations); Agriculture (Biofertilizers); Mycotoxins; Biological control (Mycofungicides, Mycoherbicides, Mycoinsecticides, Myconematicides); Medical mycology.

Unit- 9: Phytopathology

Terms and concepts; General symptoms; Geographical distribution of diseases; Etiology; Symptomology; Host-Pathogen relationships; Disease cycle and environmental relation; prevention and control of plant diseases, and role of quarantine.

Bacterial diseases – Citrus canker and angular leaf spot of cotton. Viral diseases – Tobacco Mosaic viruses, vein clearing. Fungal diseases – Early blight of potato, Black stem rust of wheat, White rust of crucifers.

C3P: Mycology and Phytopathology

Credits 02

Practical

1. Introduction to the world of fungi (Unicellular, coenocytic/septate mycelium, ascocarps & basidiocarps).
2. *Rhizopus*: study of asexual stage from temporary mounts and sexual structures through permanent slides.
3. *Aspergillus* and *Penicillium*: study of asexual stage from temporary mounts. Study of Sexual stage from permanent slides/photographs.
4. *Peziza*: Ascobolus sectioning through ascocarp.
5. *Alternaria*: Specimens/photographs and temporary mounts.



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6. *Puccinia*: Herbarium specimens of Black Stem Rust of Wheat and infected Barberry leaves; sections/ mounts of spores on wheat and permanent slides of both the hosts.
7. *Agaricus*: Specimens of button stage and full grown mushroom; sectioning of gills of *Agaricus*, fairy rings and bioluminescent mushrooms to be shown.
8. Study of phaneroplasmodium from actual specimens and /or photograph. Study of *Stemonitis* sporangia.
9. *Albugo*: Study of symptoms of plants infected with *Albugo*; asexual phase study through section/ temporary mounts and sexual structures through permanent slides.
10. Lichens: Study of growth forms of lichens (crustose, foliose and fruticose) on different substrates. Study of thallus and reproductive structures (soredia and apothecium) through permanent slides. Mycorrhizae: ectomycorrhiza and endomycorrhiza (Photographs)
11. Phytopathology : Herbarium specimens of bacterial diseases; Citrus Canker; Angular leaf spot of cotton, Viral diseases: TMV, Vein clearing, Fungal diseases: Early blight of potato, Black stem rust of wheat and White rust of crucifers.

Suggested Readings:

- Agrios, G.N. (1997) Plant Pathology, 4th edition, Academic Press, U.K.
- Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology, John Wiley & Sons (Asia) Singapore. 4th edition.
- Webster, J. and Weber, R. (2007). Introduction to Fungi, Cambridge University Press, Cambridge. 3rd edition.
- Sethi, I.K. and Walia, S.K. (2011). Text book of Fungi and Their Allies, Macmillan Publishers India Ltd.
- Sharma, P.D. (2011). Plant Pathology, Rastogi Publication, Meerut, India.

CC-4: Archegoniate

Credits 06

C4T: Archegoniate

Credits 04

Course Contents:

Unit 1: Introduction

Unifying features of archegoniate; Transition to land habit; Alternation of generations.

Unit 2: Bryophytes

General characteristics; Adaptations to land habit; Classification; Range of thallus organization.

Unit 3: Type Studies- Bryophytes

Classification (up to family), morphology, anatomy and reproduction of *Riccia*, *Marchantia*, *Pellia*, *Porella*, *Anthoceros*, *Sphagnum* and *Funaria*; Pogonatum, Reproduction and evolutionary trends in *Riccia*, *Marchantia*, *Plagichasma* *Anthoceros* and *Funaria* (developmental stages not included). Ecological and economic importance of bryophytes with special reference to *Sphagnum*.

Unit 4: Pteridophytes

General characteristics; Classification; Early land plants (*Cooksonia* and *Rhynia*).



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Unit 5: Type Studies- Pteridophytes

Classification (up to family), morphology, anatomy and reproduction of *Psilotum*, *Selaginella*, *Equisetum* and *Pteris* (Developmental details not to be included). Apogamy, and apospory, heterospory and seed habit, telome theory, stellar evolution; Ecological and economic importance.

Unit 6: Gymnosperms

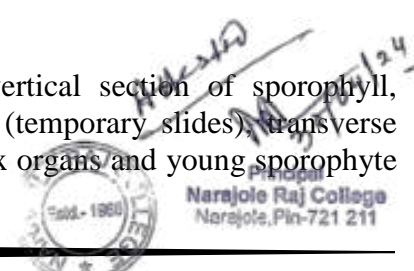
General characteristics, classification (up to family), morphology, anatomy and reproduction of *Cycas*, *Pinus* and *Gnetum* (Developmental details not to be included); Ecological and economic importance.

C4P : Archegoniate

Credits 02

Practical

1. *Riccia* – Morphology of thallus.
2. *Marchantia*- Morphology of thallus, whole mount of rhizoids & Scales, vertical section of thallus through Gemma cup, whole mount of Gemmae (all temporary slides), vertical section of Antheridiophore, Archegoniophore, longitudinal section of Sporophyte (all permanent slides).
3. *Anthoceros*- Morphology of thallus, dissection of sporophyte (to show stomata, spores, pseudocelaters, columella) (temporary slide), vertical section of thallus (permanent slide).
4. *Pellia*, *Porella*- Permanent slides.
5. *Sphagnum*- Morphology of plant, whole mounts of leaf (permanent slide only).
6. *Funaria*- Pogonatum/ Polytrichum Morphology, whole mount of leaf, rhizoids, operculum, peristome, annulus, spores (temporary slides); permanent slides showing antheridial and archegonial heads, longitudinal section of capsule and protonema.
7. *Psilotum*- Study of specimen, transverse section of synangium (permanent slide).
8. *Selaginella*- Morphology, whole mount of leaf with ligule, transverse section of stem, whole mount of strobilus, whole mount of microsporophyll and megasporophyll (temporary slides), longitudinal section of strobilus (permanent slide).
9. *Equisetum*- Morphology, transverse section of internode, longitudinal section of strobilus, transverse section of strobilus, whole mount of sporangiophore, whole mount of spores (wet and dry) (temporary slide), transverse section of rhizome (permanent slide).
10. *Pteris*- Morphology, transverse section of rachis, vertical section of sporophyll, whole mount of sporangium, whole mount of spores (temporary slides), transverse section of rhizome, whole mount of prothallus with sex organs and young sporophyte (permanent slide).



11. *Cycas*- Morphology (coralloid roots, bulbil, leaf), whole mount of microsporophyll, transverse section of coralloid root, transverse section of rachis, vertical section of leaflet, vertical section of microsporophyll, whole mount of spores (temporary slides), longitudinal section of ovule, transverse section of root (permanent slide).
12. *Pinus*- Morphology (long and dwarf shoots, whole mount of dwarf shoot, male and female cones), transverse section of Needle, transverse section of stem, longitudinal section of / transverse section of male cone, whole mount of microsporophyll, whole mount of Microspores (temporary slides), longitudinal section of female cone, tangential longitudinal section & radial longitudinal sections stem (permanent slide).
13. *Gnetum*- Morphology (stem, male & female cones), transverse section of stem, vertical section of ovule (permanent slide)
14. **Botanical excursion.**

Suggested Readings:

- Vashistha, P.C., Sinha, A.K., Kumar, A. (2010). Pteridophyta. S. Chand. Delhi, India.
- Bhatnagar, S.P. & Moitra, A. (1996). Gymnosperms. New Age International (P) Ltd Publishers, New Delhi, India.
- Parihar, N.S. (1991). An introduction to Embryophyta: Vol. I. Bryophyta. Central Book Depot. Allahabad.
- Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R. (2005). Biology. Tata McGraw Hill, Delhi.
- Vanderpoorten, A. & Goffinet, B. (2009) Introduction to Bryophytes. Cambridge University Press.

CC-5: Anatomy of Angiosperms

Credits 06

C5T: Anatomy of Angiosperms

Credits 04

Course Contents:

Unit 1: Introduction and scope of Plant Anatomy: Applications in systematics, forensics and pharmacognosy.

Unit 2: Structure and Development of Plant Body

Internal organization of plant body: The three tissue systems, types of cells and tissues. Development of plant body: polarity, cytodifferentiation and organogenesis during embryogenic development, Root-stem transition, Nodal anatomy – Basic concept.

Unit 2: Tissues

Classification of tissues; Simple and complex tissues (no phylogeny); cytodifferentiation of tracheary elements and sieve elements; Pits and plasmodesmata; Wall ingrowths and transfer cells, adcrustation and incrustation, Ergastic substances. Hydathodes, cavities, lithocysts and laticifers.

Unit 3: Apical meristems



Evolution of concept of organization of shoot apex (Apical cell theory, Histogen theory, Tunica Corpus theory, continuing meristematic residue, cytohistological zonation); Types of vascular bundles; Structure of dicot and monocot stem. Origin, development, arrangement and diversity in size and shape of leaves; Structure of dicot and monocot leaf, Kranz anatomy. Organization of root apex (Apical cell theory, Histogen theory, Korper-Kappe theory); Quiescent centre; Root cap; Structure of dicot and monocot root; Endodermis, exodermises and origin of lateral root.

Unit 4: Vascular Cambium and Wood

Structure, function and seasonal activity of cambium; Secondary growth in root and stem. Anomalous secondary growth in *Bignonia*, *Boerhaavia*, *Aristolochia* and *Dracaena*. Axially and radially oriented elements; Types of rays and axial parenchyma; Cyclic aspects and reaction wood; Sapwood and heartwood; Ring and diffuse porous wood; Early and late wood, tyloses; Dendrochronology. Development and composition of periderm, rhytidome and lenticels.

Unit 5: Adaptive and Protective Systems

Epidermal tissue system, cuticle, epicuticular waxes, trichomes (uni- and multicellular, glandular and nonglandular, two examples of each), stomata (classification); Adcrustation and incrustation; Anatomical adaptations of xerophytes and hydrophytes. Mechanical tissue – distribution and significance.

C5P: Anatomy of Angiosperms

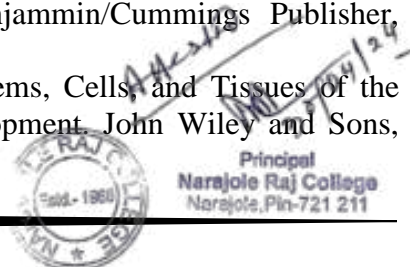
Credits 02

Practical

1. Study of anatomical details through permanent slides/temporary stain mounts/macerations/museum specimens with the help of suitable examples.
2. Apical meristem of root, shoot and vascular cambium.
3. Distribution and types of parenchyma, collenchyma and sclerenchyma.
4. Xylem: Tracheary elements-tracheids, vessel elements; thickenings; perforation plates; xylem fibres.
5. Wood: ring porous; diffuse porous; tyloses; heart- and sapwood.
6. Phloem: Sieve tubes-sieve plates; companion cells; phloem fibres.
7. Epidermal system: cell types, stomata types; trichomes: non-glandular and glandular.
8. Root: monocot, dicot, secondary growth.
9. Stem: monocot, dicot - primary and secondary growth; periderm; lenticels.
10. Leaf: isobilateral, dorsiventral, C4 leaves (Kranz anatomy).
11. Adaptive Anatomy: xerophytes, hydrophytes.
12. Secretory tissues: cavities, lithocysts and laticifers.

Suggested Readings:

- Dickison, W.C. (2000). Integrative Plant Anatomy. Harcourt Academic Press, USA.
- Fahn, A. (1974). Plant Anatomy. Pergmon Press, USA.
- Mauseth, J.D. (1988). Plant Anatomy. The Benjamin/Cummings Publisher, USA.
- Evert, R.F. (2006) Esau's Plant Anatomy: Meristems, Cells, and Tissues of the Plant Body: Their Structure, Function and Development. John Wiley and Sons, Inc.



CC-6: Economic Botany

Credits 06

C6T: Economic Botany

Credits 04

Course Contents:

Unit 1: Origin of Cultivated Plants

Concept of Centres of Origin, their importance with reference to Vavilov's work. Examples of major plant introductions; Crop domestication and loss of genetic diversity; evolution of new crops/varieties, importance of germplasm diversity.

Unit 2: Cereals

Wheat and Rice (origin, morphology, cultivation, management processing & uses); Brief account of millets.

Unit 3: Legumes

Origin, morphology cultivation, management and uses of Chick pea, Pigeon pea and fodder legumes. Importance to man and ecosystem.

Unit 4: Sources of sugars and starches

Morphology cultivation, management and processing of sugarcane, products and by-products of sugarcane industry. Potato – morphology, propagation & uses.

Unit 5: Spices

Listing of important spices, their family and part used. Economic importance with special reference to fennel, saffron, clove and black pepper

Unit 6: Beverages

Tea, Coffee (morphology, processing & uses)

Unit 7: Sources of oils and fats

General description, classification, extraction, their uses and health implications groundnut, coconut, linseed, soybean, mustard and coconut (Botanical name, family & uses). Essential Oils: General account, extraction methods, comparison with fatty oils & their uses.

Unit 8: Natural Rubber

Para-rubber: tapping, processing and uses.

Unit 9: Drug-yielding plants

Therapeutic and habit-forming drugs with special reference to *Cinchona*, *Digitalis*, *Papaver* and *Cannabis*; Tobacco (Morphology, processing, uses and health hazards).

Unit 10: Timber plants

General account with special reference to teak and pine.

Unit 11: Fibers



Classification based on the origin of fibers; Cotton, Coir and Jute (morphology, extraction and uses).

C6P: Economic Botany

Credits 02

Practical

1. **Cereals:** Wheat (habit sketch, L. S/T.S. grain, starch grains, micro-chemical tests)
Rice (habit sketch, study of paddy and grain, starch grains, micro-chemical tests).
2. **Legumes:** Soybean, Groundnut, (habit, fruit, seed structure, micro-chemical tests).
3. **Sources of sugars and starches:** Sugarcane (habit sketch; cane juice- micro-chemical tests), Potato (habit sketch, tuber morphology, T.S. tuber to show localization of starch grains, w.m. starch grains, micro-chemical tests).
4. **Spices:** Black pepper, Fennel and Clove (habit and sections).
5. **Beverages:** Tea (plant specimen, tea leaves), Coffee (plant specimen, beans).
6. **Sources of oils and fats:** Coconut- T.S. nut, Mustard–plant specimen, seeds; tests for fats in crushed seeds.
7. **Essential oil-yielding plants:** Habit sketch of *Rosa*, *Vetiveria*, *Santalum* and *Eucalyptus* (specimens/photographs).
8. **Rubber:** specimen, photograph/model of tapping, samples of rubber products.
9. **Drug-yielding plants:** Specimens of *Digitalis*, *Papaver* and *Cannabis*.
10. **Tobacco:** specimen and products of Tobacco.
11. **Woods:** *Tectona*, *Pinus*: Specimen, Section of young stem.
12. **Fiber-yielding plants:** Cotton (specimen, whole mount of seed to show lint and fuzz; whole mount of fiber and test for cellulose), Jute (specimen, transverse section of stem, test for lignin on transverse section of stem and fiber).

Suggested Readings:

- Kochhar, S.L. (2012). Economic Botany in Tropics, MacMillan & Co. New Delhi, India.
- Wickens, G.E. (2001). Economic Botany: Principles & Practices. Kluwer Academic Publishers, The Netherlands.
- Chrispeels, M.J. and Sadava, D.E. 1994 Plants, Genes and Agriculture. Jones & Bartlett Publishers.

CC-7: Genetics

Credits 06

C7T: Genetics

Credits 04

Course Contents:

Unit 1: Mendelian genetics and its extension

Mendelism: History; Principles of inheritance; Chromosome theory of inheritance; Autosomes and sex chromosomes; Probability and pedigree analysis; Incomplete dominance and codominance; Multiple alleles, Lethal alleles, Epistasis, Pleiotropy, Recessive and Dominant traits, Penetrance and Expressivity, Numericals; Polygenic inheritance.

Unit 2: Extra-chromosomal Inheritance



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Chloroplast mutation: Variegation in Four o'clock plant; Mitochondrial mutations in yeast; Maternal effects-shell coiling in snail; Infective heredity- Kappa particles in *Paramecium*.

Unit 3: Linkage, crossing over and chromosome mapping

Linkage and crossing over-Cytological and molecular basis of crossing over; Recombination frequency, two factor and three factor crosses; Interference and coincidence; Numericals based on gene mapping; Sex Linkage.

Unit 4: Variation in chromosome number and structure

Deletion, Duplication, Inversion, Translocation, Position effect, Euploidy and Aneuploidy

Unit 5: Gene mutations

Types of mutations; Molecular basis of Mutations; Mutagens – physical and chemical (Base analogs, deaminating, alkylating and intercalating agents); Detection of mutations: CIB method. Role of Transposons in mutation. DNA repair mechanisms.

Unit 6: Fine structure of gene

Classical vs molecular concepts of gene; Cis-Trans complementation test for functional allelism; Structure of Phage T4, rII Locus.

Unit 6. Population and Evolutionary Genetics

Allele frequencies, Genotype frequencies, Hardy-Weinberg Law, role of natural selection, mutation, genetic drift. Genetic variation and Speciation.

C7P: Genetics

Credits 02

Practical

1. Demonstration on pretreatment, fixation, staining and squash and smear preparation.
2. Study of Mitosis from Onion / Garlic / Lentil root.
3. Study of Meiosis with pollen mother cell (PMC) of Onion / Solanum / Datura by smear preparation.
4. Mendel's laws through seed ratios. Laboratory exercises in probability and chi-square.
5. Chromosome mapping using point test cross data.
6. Pedigree analysis for dominant and recessive autosomal and sex linked traits.
7. Incomplete dominance and gene interaction through seed ratios (9:7, 9:6:1, 13:3, 15:1, 12:3:1, 9:3:4).
8. Blood Typing: groups & Rh factor.
9. Study of aneuploidy: Down's, Klinefelter's and Turner's syndromes.
10. Photographs/Permanent Slides showing Translocation Ring, Laggards and Inversion Bridge.
11. Study of human genetic traits: Sickle cell anemia, Xeroderma Pigmentosum, Albinism, red-green Colour blindness, Widow's peak, Rolling of tongue, Hitchhiker's thumb and Attached ear lobe.

Suggested Readings:



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- Gardner, E.J., Simmons, M.J., Snustad, D.P. (1991). Principles of Genetics, John Wiley & sons, India. 8th edition.
- Snustad, D.P. and Simmons, M.J. (2010). Principles of Genetics, John Wiley & Sons Inc., India. 5th edition.
- Klug, W.S., Cummings, M.R., Spencer, C.A. (2009). Concepts of Genetics. Benjamin Cummings, U.S.A. 9th edition.
- Griffiths, A.J.F., Wessler, S.R., Carroll, S.B., Doebley, J. (2010). Introduction to Genetic Analysis. W. H. Freeman and Co., U.S.A. 10th edition.

CC-8: Molecular Biology

Credits 06

C8T: Molecular Biology

Credits 04

Course Contents:

Unit- 1: Nucleic acids: Carriers of genetic information

Historical perspective; DNA as the carrier of genetic information (Griffith's, Hershey & Chase, Avery, McLeod & McCarty, Fraenkel-Conrat's experiment).

Unit -2. The Structures of DNA and RNA / Genetic Material

DNA Structure: Miescher to Watson and Crick- historic perspective, DNA structure, Salient features of double helix, Types of DNA, Types of genetic material, denaturation and renaturation, cot curves; Organization of DNA-Prokaryotes, Viruses, Eukaryotes. RNA Structure- Organelle DNA -- mitochondria and chloroplast DNA. The Nucleosome-Chromatin structure- Euchromatin, Heterochromatin- Constitutive and Facultative heterochromatin.

Unit- 2: The replication of DNA

Chemistry of DNA synthesis (Kornberg's discovery); General principles – bidirectional, semiconservative and semi discontinuous replication, RNA priming; Various models of DNA replication, including rolling circle, θ (theta) mode of replication, replication of linear ds-DNA, replication of the 5' end of linear chromosome; Enzymes involved in DNA replication.

Unit- 3: Central dogma and genetic code

Key experiments establishing- The Central Dogma (Adaptor hypothesis and discovery of mRNA template), Genetic code (deciphering & salient features)

Unit 4: Transcription

Transcription in prokaryotes and eukaryotes. Principles of transcriptional regulation; Prokaryotes: Regulation of lactose metabolism and tryptophan synthesis in *E.coli*. Eukaryotes: transcription factors, heat shock proteins, steroids and peptide hormones; Gene silencing.

Unit 5: Processing and modification of RNA

Split genes-concept of introns and exons, removal of introns, spliceosome machinery, splicing pathways, group I and group II intron splicing, alternative splicing eukaryotic mRNA processing (5' cap, 3' polyA tail); Ribozymes; RNA editing and mRNA transport



Unit 6: Translation

Ribosome structure and assembly, mRNA; Charging of tRNA, aminoacyl tRNA synthetases; Various steps in protein synthesis, proteins involved in initiation, elongation and termination of polypeptides; Fidelity of translation; Inhibitors of protein synthesis; Post-translational modifications of proteins.

C8P: Molecular Biology

Credits 02

Practical

1. Preparation of LB medium and raising *E.Coli*.
2. Isolation of genomic DNA from *E.Coli*.
3. DNA isolation from cauliflower head.
4. DNA estimation by diphenylamine reagent/UV Spectrophotometry.
5. Study of DNA replication mechanisms through photographs (Rolling circle, Theta replication and semi-discontinuous replication).
6. Study of structures of prokaryotic RNA polymerase and eukaryotic RNA polymerase II through photographs.
7. Photographs establishing nucleic acid as genetic material (Messelson and Stahl's, Avery et al, Griffith's, Hershey & Chase's and Fraenkel & Conrat's experiments)
8. Study of the following through photographs: Assembly of Spliceosome machinery; Splicing mechanism in group I & group II introns; Ribozyme and Alternative splicing.

Suggested Readings

- Watson J.D., Baker, T.A., Bell, S.P., Gann, A., Levine, M., Losick, R. (2007). Molecular Biology of the Gene, Pearson Benjamin Cummings, CSHL Press, New York, U.S.A. 6th edition.
- Snustad, D.P. and Simmons, M.J. (2010). Principles of Genetics. John Wiley and Sons Inc., U.S.A. 5th edition.
- Klug, W.S., Cummings, M.R., Spencer, C.A. (2009). Concepts of Genetics. Benjamin Cummings. U.S.A. 9th edition.
- Russell, P. J. (2010). i-Genetics- A Molecular Approach. Benjamin Cummings, U.S.A. 3rd edition.
- Griffiths, A.J.F., Wessler, S.R., Carroll, S.B., Doebley, J. (2010). Introduction to Genetic Analysis. W. H. Freeman and Co., U.S.A. 10th edition.

CC-9: Plant Ecology and Phylogeography

Credits 06

C9T: Plant Ecology and Phylogeography

Credits 04

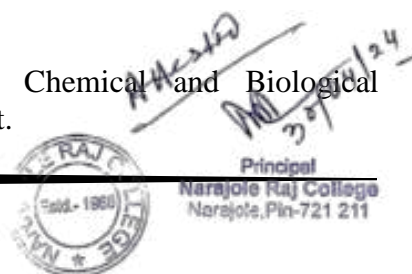
Course Contents:

Unit 1: Introduction

Basic concepts; Levels of organization. Inter-relationships between the living world and the environment, the components and dynamism, homeostasis.

Unit 2: Soil

Importance; Origin; Formation; Composition; Physical; Chemical and Biological components; Soil profile; Role of climate in soil development.



Unit 3: Water

Importance: States of water in the environment; Atmospheric moisture; Precipitation types (rain, fog, snow, hail, dew); Hydrological Cycle; Water in soil; Water table.

Unit 4: Light, temperature, wind and fire

Variations; adaptations of plants to their variation.

Unit 5: Ecosystems

Structure; Processes; Trophic organisation; Food chains and Food webs; Ecological pyramids.

Unit 6: Population ecology

Characteristics and Dynamics .Ecological Speciation

Unit 7: Plant communities

Concept of ecological amplitude; Habitat and niche; Characters: analytical and synthetic; Ecotone and edge effect; Dynamics: succession – processes, types; climax concepts.

Unit 8: Biotic interactions

Trophic organization, basic source of energy, autotrophy, heterotrophy; symbiosis, commensalism, parasitism; food chains and webs; ecological pyramids; biomass, standing crop.

Unit 9: Functional aspects of ecosystem

Principles and models of energy flow; Production and productivity; Ecological efficiencies; Biogeochemical cycles; Cycling of Carbon, Nitrogen and Phosphorus.

Unit 10: Phytogeography

Principles; Continental drift; Theory of tolerance; Endemism; Brief description of major terrestrial biomes (one each from tropical, temperate & tundra); Phytogeographical division of India; Local Vegetation.

C9P: Plant Ecology and Phytogeography

Credits 02

Practical

1. Study of instruments used to measure microclimatic variables: Soil thermometer, maximum and minimum thermometer, anemometer, psychrometer/hygrometer, rain gauge and lux meter.
2. Determination of pH of various soil and water samples (pH meter, universal indicator/Lovibond comparator and pH paper)
3. Analysis for carbonates, chlorides, nitrates, sulphates, organic matter and base deficiency from
4. two soil samples by rapid field tests.
5. Determination of organic matter of different soil samples by Walkley & Black rapid titration
6. method.



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7. Comparison of bulk density, porosity and rate of infiltration of water in soils of three habitats.
8. Determination of dissolved oxygen of water samples from polluted and unpolluted sources.
9. (a). Study of morphological adaptations of hydrophytes and xerophytes (four each).
(b). Study of biotic interactions of the following: Stem parasite (*Cuscuta*), Root parasite (*Orobancha*) Epiphytes, Predation (Insectivorous plants).
10. Determination of minimal quadrat size for the study of herbaceous vegetation in the college campus, by species area curve method (species to be listed).
11. Quantitative analysis of herbaceous vegetation in the college campus for frequency and comparison with Raunkiaer's frequency distribution law.
12. Quantitative analysis of herbaceous vegetation for density and abundance in the college campus.
13. Field visit to familiarise students with ecology of different sites.

Suggested Readings:

- Odum, E.P. (2005). Fundamentals of ecology. Cengage Learning India Pvt. Ltd., New Delhi. 5th edition.
- Singh, J.S., Singh, S.P., Gupta, S. (2006). Ecology Environment and Resource Conservation. Anamaya Publications, New Delhi, India.
- Sharma, P.D. (2010). Ecology and Environment. Rastogi Publications, Meerut, India. 8th edition.
- Wilkinson, D.M. (2007). Fundamental Processes in Ecology: An Earth Systems Approach. Oxford University Press. U.S.A.
- Kormondy, E.J. (1996). Concepts of ecology. PHI Learning Pvt. Ltd., Delhi, India. 4th edition.

CC-10: Plant Systematics

Credits 06

C10T: Plant Systematics

Credits 04

Course Contents:

Unit 1: Significance of Plant systematics

Introduction to systematics; Plant identification, Classification, Nomenclature. Evidences from palynology, cytology, phytochemistry and molecular data. Field inventory; Functions of Herbarium; Important herbaria and botanical gardens of the world and India; Virtual herbarium; E-flora; Documentation: Flora, Monographs, Journals; Keys: Single access and Multi-access.

Unit 2: Taxonomic hierarchy

Concept of taxa (family, genus, species); Categories and taxonomic hierarchy; Species concept (taxonomic, biological, evolutionary).

Unit 3: Botanical nomenclature

Principles and rules (ICN); Ranks and names; Typification, author citation, valid publication, rejection of names, principle of priority and its limitations; Names of hybrids.

Unit 4: Systems of classification

Major contributions of Theophrastus, Bauhin, Tournefort, Linnaeus, Adanson, de Candolle, Bessey, Hutchinson, Takhtajan and Cronquist; Classification systems of Bentham and Hooker (upto series) and Engler and Prantl (upto series); Brief reference of Angiosperm Phylogeny Group (APG III) classification.

Unit 5: Biometrics, numerical taxonomy and cladistics

Characters; Variations; OTUs, character weighting and coding; Cluster analysis; Phenograms, cladograms (definitions and differences).

Unit 6: Phylogeny of Angiosperms

Terms and concepts (primitive and advanced, homology and analogy, parallelism and convergence, monophyly, Paraphyly, polyphyly and clades). Origin and evolution of angiosperms; Co-evolution of angiosperms and animals; Methods of illustrating evolutionary relationship (phylogenetic tree, cladogram).

C10P: Plant Systematics

Credits 02

Practical

1. Study of vegetative and floral characters of the following families (Description, V.S. flower, section of ovary, floral diagram/s, floral formula/e and systematic position according to Bentham & Hooker's system of classification):

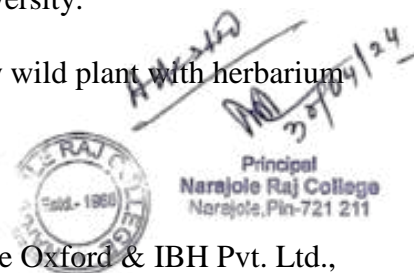
1. Ranunculaceae - *Ranunculus*, *Delphinium*.
2. Brassicaceae - *Brassica*, *Alyssum* / *Iberis*.
3. Malvaceae – *Sida Sp.* *Urena lobota*.
4. Myrtaceae - *Eucalyptus*, *Callistemon*
5. Umbelliferae - *Coriandrum* / *Anethum* / *Foeniculum*.
6. Asteraceae - *Sonchus/Launaea*, *Vernonia/Ageratum*, *Eclipta/Tridax*.
7. Solanaceae - *Solanum nigrum/Withania*, *Nicotina*, *Plumbaginefolia*.
8. Lamiaceae - *Salvia/Ocimum*.
9. Euphorbiaceae - *Euphorbia hirta/E.milii*, *Jatropha*.
10. Fasaceae – *Tephrosia Sp.*, *Crotalaria Sp.*,
11. Caesalpineaeceae – *Cassia Sp.*,
12. Asclepiadaeaceae- *Pesgularia Gygnema*,
13. Apocynaceae – *Hollorhen*, *Catharanthus*.
14. Rubiaceae – *Oldenladeae*, *Spermoeoceae*,
15. Liliaceae - *Asphodelus/Lilium/Allium*.
16. Poaceae - *Triticum/Hordeum/Avena*.

2. Field visit (local) – Subject to grant of funds from the university.

3. Mounting of a properly dried and pressed specimen of any wild plant with herbarium label (to be submitted in the record book).

Suggested Readings:

- Singh, (2012). *Plant Systematics: Theory and Practice* Oxford & IBH Pvt. Ltd., New Delhi. 3rd edition.



- Jeffrey, C. (1982). *An Introduction to Plant Taxonomy*. Cambridge University Press, Cambridge.
- Judd, W.S., Campbell, C.S., Kellogg, E.A., Stevens, P.F. (2002). *Plant Systematics-A*
- *Phylogenetic Approach*. Sinauer Associates Inc., U.S.A. 2nd edition.
- Maheshwari, J.K. (1963). *Flora of Delhi*. CSIR, New Delhi.
- Radford, A.E. (1986). *Fundamentals of Plant Systematics*. Harper and Row, New York.

CC-11: Reproductive Biology of Angiosperms

Credits 06

C11T: Reproductive Biology of Angiosperms

Credits 04

Course Contents:

Unit 1: Introduction

History (contributions of G.B. Amici, W. Hofmeister, E. Strasburger, S.G. Nawaschin, P. Maheshwari, B.M. Johri, W.A. Jensen, J. Heslop-Harrison) and scope.

Unit 2: Reproductive development

Induction of flowering; flower as a modified determinate shoot. Flower development: genetic and molecular aspects.

Unit 3: Anther and pollen biology

Anther wall: Structure and functions, microsporogenesis, callose deposition and its significance. Microgametogenesis; Pollen wall structure, MGU (Male Germ Unit) structure, NPC system; Palynology and scope (a brief account); Pollen wall proteins; Pollen viability, storage and germination; Abnormal features: Pseudomonads, polyads, massulae, pollinia.

Unit 4: Ovule

Structure; Types; Special structures—endothelium, obturator, aril, caruncle and hypostase; Female Gametophyte – megasporogenesis (monosporic, bisporic and tetrasporic) and megagametogenesis (details of *Polygonum* type); Organization and ultrastructure of mature embryo sac.

Unit 4: Pollination and fertilization

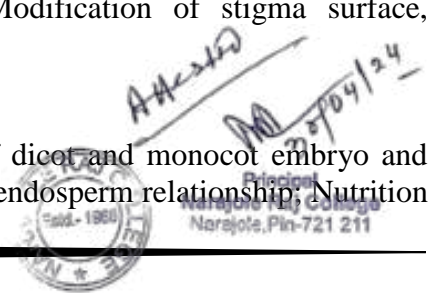
Pollination types and significance; adaptations; structure of stigma and style; path of pollen tube in pistil; double fertilization.

Unit 5: Self incompatibility

Basic concepts (interspecific, intraspecific, homomorphic, heteromorphic, GSI and SSI); Methods to overcome self- incompatibility: mixed pollination, bud pollination, stub pollination; Intra-ovarian and *in vitro* pollination; Modification of stigma surface, parasexual hybridization; Cybrids, *in vitro* fertilization.

Unit 6: Embryo, Endosperm and Seed

Structure and types; General pattern of development of dicot and monocot embryo and endosperm; Suspensor: structure and functions; Embryo-endosperm relationship; Nutrition



of embryo; Unusual features; Embryo development in *Paeonia*. Seed structure, importance and dispersal mechanisms

Units 7: Polyembryony and apomixis

Introduction; Classification; Causes and applications.

C11P: Reproductive Biology of Angiosperms

Credits 02

Practical

1. Anther: Wall and its ontogeny; Tapetum (amoeboid and glandular); MMC, spore tetrads, uninucleate, bicelled and dehisced anther stages through slides/micrographs, male germ unit (MGU) through photographs and schematic representation.
2. Pollen grains: Fresh and acetolyzed showing ornamentation and aperture, pseudomonads, polyads, pollinia (slides/photographs, fresh material), ultrastructure of pollen wall (micrograph); Pollen viability: Tetrazolium test, germination: Calculation of percentage germination in different media using hanging drop method.
3. Ovule: Types-anatropous, orthotropous, amphitropous/campylotropous, circinotropous, unitegmic, bitegmic; Tenuinucellate and crassinucellate; Special structures: Endothelium, obturator, hypostase, caruncle and aril (permanent slides/specimens/photographs).
4. Female gametophyte through permanent slides/ photographs: Types, ultrastructure of mature egg apparatus.
5. Intra-ovarian pollination; Test tube pollination through photographs.
6. Endosperm: Dissections of developing seeds for endosperm with free-nuclear haustoria.
7. Embryogenesis: Study of development of dicot embryo through permanent slides; dissection of developing seeds for embryos at various developmental stages; Study of suspensor through electron micrographs.

Suggested Readings:

- Bhojwani, S.S. and Bhatnagar, S.P. (2011). The Embryology of Angiosperms, Vikas Publishing House. Delhi. 5th edition.
- Shivanna, K.R. (2003). Pollen Biology and Biotechnology. Oxford and IBH Publishing Co. Pvt. Ltd. Delhi.
- Raghavan, V. (2000). Developmental Biology of Flowering plants, Springer, Netherlands.
- Johri, B.M. I (1984). Embryology of Angiosperms, Springer-Verlag, Netherlands.

CC-12: Plant Physiology

Credits 06



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Course Contents:**Unit 1: Plant-water relations**

Water Potential and its components, water absorption by roots, aquaporins, pathway of water movement, symplast, apoplast, transmembrane pathways, root pressure, guttation. Ascent of sap – cohesion-tension theory. Transpiration and factors affecting transpiration, antitranspirants, mechanism of stomatal movement.

Unit 2: Mineral nutrition

Essential and beneficial elements, macro and micronutrients, methods of study and use of nutrient solutions, criteria for essentiality, mineral deficiency symptoms, roles of essential elements, chelating agents.

Unit 3: Nutrient Uptake

Soil as a nutrient reservoir, transport of ions across cell membrane, passive absorption, electrochemical gradient, facilitated diffusion, active absorption, role of ATP, carrier systems, proton ATPase pump and ion flux, uniport, co-transport, symport, antiport.

Unit 4: Translocation in the phloem

Experimental evidence in support of phloem as the site of sugar translocation. Pressure–Flow Model; Phloem loading and unloading; Source–sink relationship.

Unit 5: Plant growth regulators

Discovery, chemical nature (basic structure), bioassay and physiological roles of Auxin, Gibberellins, Cytokinin, Abscisic acid, Ethylene, Brassinosteroids and Jasmonic acid.

Unit 6: Physiology of flowering

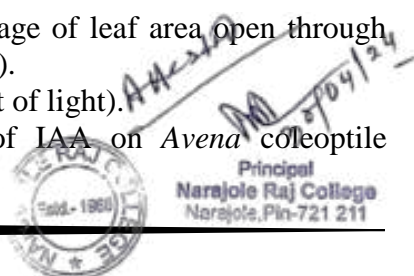
Photoperiodism, flowering stimulus, florigen concept, vernalization, seed dormancy.

Unit 7: Phytochrome , cryptochromes and phototropins

Discovery, chemical nature, role in photomorphogenesis, low energy responses (LER) and high irradiance responses (HIR), mode of action.

Practical

1. Determination of osmotic potential of plant cell sap by plasmolytic method.
2. Determination of water potential of given tissue (potato tuber) by weight method.
3. Study of the effect of wind velocity and light on the rate of transpiration in excised twig/leaf.
4. Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a mesophyte and xerophyte.
5. To calculate the area of an open stoma and percentage of leaf area open through stomata in a mesophyte and xerophyte (both surfaces).
6. To study the phenomenon of seed germination (effect of light).
7. To study the effect of different concentrations of IAA on *Avena* coleoptile elongation (IAA Bioassay).



8. To study the induction of amylase activity in germinating barley grains.

Demonstration experiments

1. To demonstrate suction due to transpiration.
2. Fruit ripening/Rooting from cuttings (Demonstration).
3. Bolting experiment/*Avena* coleptile bioassay (demonstration).

Suggested Readings:

- Hopkins, W.G. and Huner, A. (2008). Introduction to Plant Physiology. John Wiley and Sons. U.S.A. 4th edition.
- Taiz, L., Zeiger, E., Møller, I.M. and Murphy, A (2015). Plant Physiology and Development. Sinauer Associates Inc. USA. 6th edition.
- Bajracharya D. (1999). Experiments in Plant Physiology-A Laboratory Manual. Narosa Publishing House, New Delhi.

CC-13: Plant Metabolism

Credits 06

C13T: Plant Metabolism

Credits 04

Course Contents:

Unit 1: Concept of metabolism

Introduction, anabolic and catabolic pathways, regulation of metabolism, role of regulatory enzymes (allosteric, covalent modulation and Isozymes).

Unit 2: Carbon assimilation

Historical background, photosynthetic pigments, role of photosynthetic pigments (chlorophylls and accessory pigments), antenna molecules and reaction centres, photochemical reactions, photosynthetic electron transport, PSI, PSII, Q cycle, CO₂ reduction, photorespiration, C₄ pathways; Crassulacean acid metabolism; Factors affecting CO₂ reduction.

Unit 3: Carbohydrate metabolism

Synthesis and catabolism of sucrose and starch.

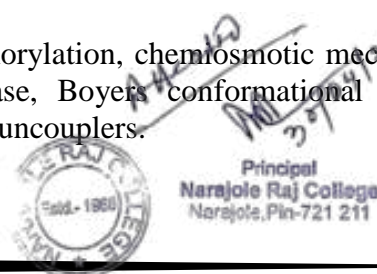
Unit 4: Carbon Oxidation

Glycolysis, fate of pyruvate, regulation of glycolysis, oxidative pentose phosphate pathway, oxidative decarboxylation of pyruvate, regulation of PDH, NADH shuttle; TCA cycle, amphibolic role, anaplerotic reactions, regulation of the cycle, mitochondrial electron transport, oxidative phosphorylation, cyanide-resistant respiration, factors affecting respiration.

Unit 5: ATP-Synthesis

Mechanism of ATP synthesis, substrate level phosphorylation, chemiosmotic mechanism (oxidative and photophosphorylation), ATP synthase, Boyer's conformational model, Racker's experiment, Jagendorf's experiment; role of uncouplers.

Unit 6: Lipid metabolism



Synthesis and breakdown of triglycerides, β -oxidation, glyoxylate cycle, gluconeogenesis and its role in mobilisation of lipids during seed germination, α oxidation.

Unit 7: Nitrogen metabolism

Nitrate assimilation, biological nitrogen fixation (examples of legumes and non-legumes); Physiology and biochemistry of nitrogen fixation; Ammonia assimilation and transamination.

Unit 8: Mechanisms of signal transduction

Receptor-ligand interactions; Second messenger concept, Calcium calmodulin, MAP kinase cascade.

C13P: Plant Metabolism

Credits 02

Practical

1. Chemical separation of photosynthetic pigments.
2. Experimental demonstration of Hill's reaction.
3. To study the effect of light intensity on the rate of photosynthesis.
4. Effect of carbon dioxide on the rate of photosynthesis.
5. To compare the rate of respiration in different parts of a plant.
6. To demonstrate activity of Nitrate reductase in germinating leaves of different plant sources.
7. To study the activity of lipases in germinating oilseeds and demonstrate mobilization of lipids
 1. during germination.
8. Demonstration of fluorescence by isolated chlorophyll pigments.
9. Demonstration of absorption spectrum of photosynthetic pigments.

Suggested Readings

- Hopkins, W.G. and Huner, A. (2008). Introduction to Plant Physiology. John Wiley and Sons. U.S.A. 4th edition.
- Taiz, L., Zeiger, E., Møller, I.M. and Murphy, A (2015). Plant Physiology and Development. Sinauer Associates Inc. USA. 6th edition.
- Harborne, J.B. (1973). Phytochemical Methods. John Wiley & Sons. New York.

CC-14: Plant Biotechnology

Credits 06

C14T: Plant Biotechnology

Credits 04

Course Contents:

Unit -1: Plant Tissue Culture

Historical perspective; Composition of media; Nutrient and hormone requirements (role of vitamins and hormones); Totipotency; Organogenesis; Embryogenesis (somatic and zygotic); Protoplast isolation, culture and fusion; Tissue culture applications (micropropagation, androgenesis, virus elimination, secondary metabolite production, haploids, triploids and hybrids; Cryopreservation; Germplasm Conservation).



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Unit- 2: Recombinant DNA technology

Restriction Endonucleases (History, Types I-IV, biological role and application); Restriction Mapping (Linear and Circular); Cloning Vectors: Prokaryotic (pUC 18 and pUC19, pBR322, Ti plasmid, BAC); Lambda phage, M13 phagemid, Cosmid, Shuttle vector; Eukaryotic Vectors (YAC).

Unit- 3: Gene Cloning

Recombinant DNA, Bacterial Transformation and selection of recombinant clones, PCR mediated gene cloning; Gene Construct; construction of genomic and cDNA libraries, screening DNA libraries to obtain gene of interest by genetic selection; complementation, colony hybridization; PCR

Unit- 4: Methods of gene transfer

Agrobacterium-mediated, Direct gene transfer by Electroporation, Microinjection, Microprojectile bombardment; Selection of transgenics– selectable marker and reporter genes (Luciferase, GUS, GFP).

Unit - 5: Applications of Biotechnology

Pest resistant (Bt-cotton); herbicide resistant plants (RoundUp Ready soybean); Transgenic crops with improved quality traits (Flavr Savr tomato, Golden rice); Improved horticultural varieties (Moondust carnations); Role of transgenics in bioremediation (Superbug); edible vaccines; Industrial enzymes (Aspergillase, Protease, Lipase); Genetically Engineered Products–Human Growth Hormone; Humulin; Biosafety concerns.

C14P: Plant Biotechnology

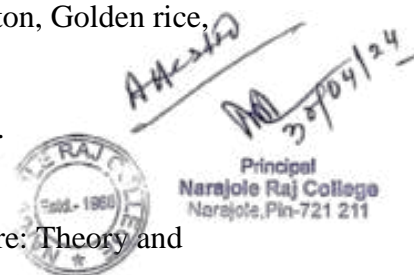
Credits 02

Practical

1. (a) Preparation of MS medium.
(b) Demonstration of *in vitro* sterilization and inoculation methods using leaf and nodal explants of tobacco, *Datura*, *Brassica* etc.
2. Study of anther, embryo and endosperm culture, micropropagation, somatic embryogenesis & artificial seeds through photographs.
3. Isolation of protoplasts.
4. Construction of restriction map of circular and linear DNA from the data provided.
5. Study of methods of gene transfer through photographs: *Agrobacterium*-mediated, direct gene transfer by electroporation, microinjection, microprojectile bombardment.
6. Study of steps of genetic engineering for production of Bt cotton, Golden rice, Flavr Savr tomato through photographs.
7. Isolation of plasmid DNA.
8. Restriction digestion and gel electrophoresis of plasmid DNA.

Suggested Readings:

- Bhojwani, S.S. and Razdan, M.K., (1996). Plant Tissue Culture: Theory and Practice. Elsevier Science Amsterdam. The Netherlands.
- Glick, B.R., Pasternak, J.J. (2003). Molecular Biotechnology- Principles and Applications of recombinant DNA. ASM Press, Washington.



- Bhojwani, S.S. and Bhatnagar, S.P. (2011). The Embryology of Angiosperms. Vikas Publication House Pvt. Ltd., New Delhi. 5th edition.
- Snustad, D.P. and Simmons, M.J. (2010). Principles of Genetics. John Wiley and Sons, U.K. 5th edition.
- Stewart, C.N. Jr. (2008). Plant Biotechnology & Genetics: Principles, Techniques and Applications. John Wiley & Sons Inc. U.S.A.

Discipline Specific Electives (DSE)

DSE-1: Natural Resource Management **Credits 06**

DSE1T: Natural Resource Management **Credits 04**

Course Contents:

Unit- 1: Natural resources : Definition and types.

Unit- 2: Sustainable utilization : Concept, approaches (economic, ecological and socio-cultural).

Unit- 3: Land : Utilization (agricultural, pastoral, horticultural, silvicultural); Soil degradation and management.

Unit- 4: Water

Fresh water (rivers, lakes, groundwater, aquifers, watershed); Marine; Estuarine; Wetlands; Threats and management strategies.

Unit- 5: Biological Resources

Biodiversity-definition and types; Significance; Threats; Management strategies; Bio-prospecting; IPR; CBD; National Biodiversity Action Plan).

Unit - 6: Forests

Definition, Cover and its significance (with special reference to India); Major and minor Forest products; Depletion; Management.

Unit- 7: Energy : Renewable and non-renewable sources of energy

Unit- 8: Contemporary practices in resource management

EIA, GIS, Participatory Resource Appraisal, Ecological Footprint with emphasis on carbon footprint, Resource Accounting; Waste management.

Unit- 9: National and international efforts in resource management and conservation

DSE-1P: Natural Resource Management **Credits 02**

Practical

1. Estimation of solid waste generated by a domestic system (biodegradable and nonbiodegradable) and its impact on land degradation.
2. Collection of data on forest cover of specific area.



3. Measurement of dominance of woody species by DBH (diameter at breast height) method.
4. Calculation and analysis of ecological footprint.
5. Ecological modeling.

Suggested Readings:

- Vasudevan, N. (2006). Essentials of Environmental Science. Narosa Publishing House, New Delhi.
- Singh, J. S., Singh, S.P. and Gupta, S. (2006). Ecology, Environment and Resource Conservation. Anamaya Publications, New Delhi.
- Rogers, P.P., Jalal, K.F. and Boyd, J.A. (2008). An Introduction to Sustainable Development. Prentice Hall of India Private Limited, New Delhi.

Or

DSE-1: Biostatistics

Credits 06

DSE1T: Biostatistics

Credits 04

Course Contents:

Unit 1: Biostatistics

Definition - statistical methods - basic principles. Variables - measurements, functions, limitations and uses of statistics.

Unit 2: Collection of data primary and secondary

Types and methods of data collection procedures - merits and demerits. Classification - tabulation and presentation of data - sampling methods.

Unit 3: Measures of central tendency

Mean, median, mode, geometric mean - merits & demerits. Measures of dispersion - range, standard deviation, mean deviation, quartile deviation - merits and demerits; Co-efficient of variations.

Unit 4: Correlation

Types and methods of correlation, regression, simple regression equation, fitting prediction, similarities and dissimilarities of correlation and regression

Unit 5: Statistical inference

Hypothesis - simple hypothesis - student 't' test - chi square test.

DSE1P: Biostatistics

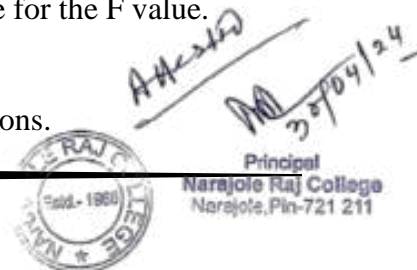
Credits 02

Practical

1. Calculation of mean, standard deviation and standard error
2. Calculation of correlation coefficient values and finding out the probability
3. Calculation of 'F' value and finding out the probability value for the F value.

Suggested Readings

- Biostatistic, Danniell, W.W., 1987. New York, John Wiley Sons.



- An introduction to Biostatistics, 3rd edition, Sundarrao, P.S.S and Richards, J. Christian Medical College, Vellore
- Statistical Analysis of epidemiological data, Selvin, S., 1991. New York University Press. Statistics for Biology, Boston, Bishop, O.N. Houghton, Mifflin.
- The Principles of scientific research, Freedman, P. New York, Pergamon Press.
- Statistics for Biologists, Campbell, R.C., 1998. Cambridge University Press.

DSE-2: Plant Breeding

Credits 06

DSE2T: Plant Breeding

Credits 04

Course Contents:

Unit -1: Plant Breeding

Introduction and objectives. Breeding systems: modes of reproduction in crop plants. Important achievements and undesirable consequences of plant breeding.

Unit -2: Methods of Crop improvement

Introduction: Centres of origin and domestication of crop plants, plant genetic resources; Acclimatization; Selection methods: For self pollinated, cross pollinated and vegetatively propagated plants; Hybridization: For self, cross and vegetatively propagated plants – Procedure, advantages and limitations.

Unit -3: Quantitative inheritance

Concept, mechanism, examples of inheritance of Kernel colour in wheat, Skin colour in human beings. Monogenic vs polygenic Inheritance.

Unit - 4: Inbreeding depression and heterosis

History, genetic basis of inbreeding depression and heterosis : Applications.

Unit - 5: Crop improvement and breeding

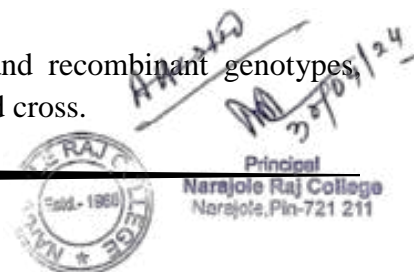
Role of mutations; Polyploidy; Distant hybridization and role of biotechnology in crop improvement.

DSE2P: Plant Breeding (Practical)

Credits 02

Practical

1. Identification of offspring's having parental genotypes and recombinant genotypes, based on combination of morphological attributes in a dihybrid cross.



2. Processes of emasculation –

- a) By applying higher temperature,
- b) By amputating anthers.

3. Determination of genetic inheritance of characters in monohybrid and dihybrid crosses by Chi-square test (including Mendelian ratios and the ratios of gene interactions e.g. Dominant Epistasis, Supplementary gene action, Polymeric Gene action, Complementary Gene action, Inhibitory Gene action and Duplicating Gene action.

4. Identification of fertile and sterile pollens with carmine stain and TTC test.

Suggested Readings:

1. Singh, B.D. (2005). Plant Breeding: Principles and Methods. Kalyani Publishers. 7th edition.
2. Chaudhari, H.K. (1984). Elementary Principles of Plant Breeding. Oxford-IBH. 2nd edition.
3. Acquaah, G. (2007). Principles of Plant Genetics & Breeding. Blackwell Publishing.

Or

DSE-2: Stress Biology

Credits 06

DSE2T: Stress Biology

Credits 04

Course Contents:

Unit 1: Defining plant stress: Acclimation and adaptation.

Unit 2: Environmental factors: Water stress; Salinity stress, High light stress; Temperature stress; Hypersensitive reaction; Pathogenesis– related (PR) proteins; Systemic acquired resistance; Mediation of insect and disease resistance by jasmonates.

Unit 3: Stress sensing mechanisms in plants: Calcium modulation, Phospholipid signaling

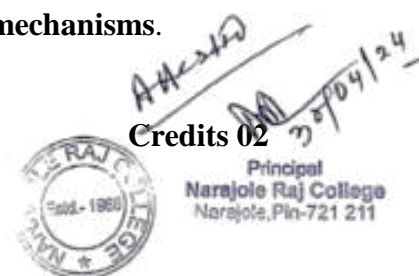
Unit 4: Developmental and physiological mechanisms that protect plants against environmental stress: Adaptation in plants; Changes in root: shoot ratio; Aerenchyma development; Osmotic adjustment; Compatible solute production.

Unit 5: Reactive oxygen species–Production and scavenging mechanisms.

DSE2P: Stress Biology

Credits 02

Practical



1. Quantitative estimation of peroxidase activity in the seedlings in the absence and presence of salt stress.
2. Superoxide activity in seedlings in the absence and presence of salt stress.
3. Zymographic analysis of peroxidase.
4. Zymographic analysis of superoxide dismutase activity.
5. Quantitative estimation and zymographic analysis of catalase.
6. Quantitative estimation and zymographic analysis of glutathione reductase.
7. Estimation of superoxide anions.

Suggested Readings:

- Hopkins, W.G. and Huner, A. (2008). Introduction to Plant Physiology. John Wiley and Sons. U.S.A. 4th edition.
- Taiz, L., Zeiger, E., MØller, I.M. and Murphy, A (2015). Plant Physiology and Development. Sinauer Associates Inc. USA. 6th edition.

DSE-3: Industrial and Environmental Microbiology

Credits 06

DSE-3T: Industrial and Environmental Microbiology

Credits 04

Course Contents:

Unit 1: Scope of microbes in industry and environment

Unit 2: Bioreactors / Fermenters and fermentation processes

Solid-state and liquid-state (stationary and submerged) fermentations; Batch and continuous fermentations. Components of a typical bioreactor, Types of bioreactors-laboratory, pilotscale and production fermenters; Constantly stirred tank fermenter, tower fermenter, fixed bed and fluidized bed bioreactors and air-lift fermenter.

A visit to any educational institute/ industry to see an industrial fermenter, and other downstream processing operations.

Unit 3: Microbial production of industrial products

Microorganisms involved, media, fermentation conditions, downstream processing and uses; Filtration, centrifugation, cell disruption, solvent extraction, precipitation and ultrafiltration, lyophilization, spray drying; Hands on microbial fermentations for the production and estimation (qualitative and quantitative) of Enzyme: amylase or lipase activity, Organic acid (citric acid or glutamic acid), alcohol (Ethanol) and antibiotic (Penicillin)

Unit 4: Microbial enzymes of industrial interest and enzyme immobilization

Microorganisms for industrial applications_and hands on screening microorganisms for casein hydrolysis; starch hydrolysis; cellulose hydrolysis. Methods of immobilization, advantages and applications of immobilization, large scale applications of immobilized enzymes (glucose isomerase and penicillin acylase).



Unit 5: Microbes and quality of environment.

Distribution of microbes in air; Isolation of microorganisms from soil, air and water.

Unit 6: Microbial flora of water.

Water pollution, role of microbes in sewage and domestic waste water treatment systems. Determination of BOD, COD, TDS and TOC of water samples; Microorganisms as indicators of water quality, check coliform and fecal coliform in water samples.

Unit 7: Microbes in agriculture and remediation of contaminated soils.

Biological fixation; Mycorrhizae; Bioremediation of contaminated soils. Isolation of root nodulating bacteria, arbuscular mycorrhizal colonization in plant roots.

DSE-3P: Industrial and Environmental Microbiology

Credits 02

Practical

1. Principles and functioning of instruments in microbiology laboratory
2. Hands on sterilization techniques and preparation of culture media.

Suggested Readings:

- Pelzar, M.J. Jr., Chen E.C. S., Krieg, N.R. (2010). Microbiology: An application based approach. Tata McGraw Hill Education Pvt. Ltd., Delhi.
- Tortora, G.J., Funke, B.R., Case. C.L. (2007). Microbiology. Pearson Benjamin Cummings, San Francisco, U.S.A. 9th edition.

OR

DSE-3: Bioinformatics

Credits 06

DSE3T: Bioinformatics

Credits 04

Course Contents:

Unit 1. Introduction to Bioinformatics

Introduction, Branches of Bioinformatics, Aim, Scope and Research areas of Bioinformatics.

Unit 2. Databases in Bioinformatics

Introduction, Biological Databases, Classification format of Biological Databases, Biological Database Retrieval System.

Unit 3. Biological Sequence Databases

National Center for Biotechnology Information (NCBI): Tools and Databases of NCBI, Database Retrieval Tool, Sequence Submission to NCBI, Basic local alignment search tool (BLAST), Nucleotide Database, Protein Database, Gene Expression Database. EMBL Nucleotide Sequence Database (EMBL-Bank): Introduction, Sequence Retrieval, Sequence Submission to EMBL, Sequence analysis tools. DNA Data Bank of Japan (DDBJ): Introduction, Resources at DDBJ, Data Submission at DDBJ. Protein

Information Resource (PIR): About PIR, Resources of PIR, Databases of PIR, Data Retrieval in PIR. Swiss-Prot: Introduction and Salient Features.

Unit 4. Sequence Alignments

Introduction, Concept of Alignment, Multiple Sequence Alignment (MSA), MSA by CLUSTALW, Scoring Matrices, Percent Accepted Mutation (PAM), Blocks of Amino Acid Substitution Matrix (BLOSUM).

Unit 5. Molecular Phylogeny

Methods of Phylogeny, Software for Phylogenetic Analyses, Consistency of Molecular Phylogenetic Prediction.

Unit 6. Applications of Bioinformatics

Structural Bioinformatics in Drug Discovery, Quantitative structure-activity relationship (QSAR) techniques in Drug Design, Microbial genome applications, Crop improvement

DSE3P: Bioinformatics

Credits 02

Practical

1. Nucleic acid and protein databases.
2. Sequence retrieval from databases.
3. Sequence alignment.
4. Sequence homology and Gene annotation.
5. Construction of phylogenetic tree.

Suggested Readings:

- Ghosh Z. and Bibekanand M. (2008) Bioinformatics: Principles and Applications. Oxford University Press.
- Pevsner J. (2009) Bioinformatics and Functional Genomics. II Edition. Wiley-Blackwell.
- Campbell A. M., Heyer L. J. (2006) Discovering Genomics, Proteomics and Bioinformatics. II Edition. Benjamin Cummings.

DSE-4: Analytical Techniques in Plant Sciences

Credits 06

DSE4T: Analytical Techniques in Plant Sciences

Credits 04

Course Contents:

Unit- 1: Imaging and related techniques

Principles of microscopy; Light microscopy; Fluorescence microscopy; Confocal microscopy; Use of fluorochromes: (a) Flow cytometry (FACS); (b) Applications of fluorescence microscopy: Chromosome banding, FISH, chromosome painting; Transmission and Scanning electron microscopy – sample preparation for electron microscopy, cryofixation, negative staining, shadow casting, freeze fracture, freeze etching.

Unit- 2: Cell fractionation



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Centrifugation: Differential and density gradient centrifugation, sucrose density gradient, CsCl₂ gradient, analytical centrifugation, ultracentrifugation, marker enzymes.

Unit- 3: Radioisotopes

Use in biological research, auto-radiography, pulse chase experiment.

Unit- 4: Spectrophotometry

Principle and its application in biological research.

Unit- 5: Chromatography

Principle; Paper chromatography; Column chromatography, TLC, GLC, HPLC, Ion-exchange chromatography; Molecular sieve chromatography; Affinity chromatography.

Unit- 6: Characterization of proteins and nucleic acids

Mass spectrometry; X-ray diffraction; X-ray crystallography; Characterization of proteins and nucleic acids; Electrophoresis: AGE, PAGE, SDS-PAGE

Unit- 7: Biostatistics

Statistics, data, population, samples, parameters; Representation of Data: Tabular, Graphical; Measures of central tendency: Arithmetic mean, mode, median; Measures of dispersion: Range, mean deviation, variation, standard deviation; Chi-square test for goodness of fit.

DSE4P: Analytical Techniques in Plant Sciences

Credits 02

Practical

1. Study of Blotting techniques: Southern, Northern and Western, DNA fingerprinting, DNA sequencing, PCR through photographs.
2. Demonstration of ELISA.
3. To separate nitrogenous bases by paper chromatography.
4. To separate sugars by thin layer chromatography.
5. Isolation of chloroplasts by differential centrifugation.
6. To separate chloroplast pigments by column chromatography.
7. To estimate protein concentration through Lowry's methods.
8. To separate proteins using PAGE.
9. To separation DNA (marker) using AGE.
10. Study of different microscopic techniques using photographs/micrographs (freeze fracture, freeze etching, negative staining, positive staining, fluorescence and FISH).
11. Preparation of permanent slides (double staining).

Suggested Readings:

- Plummer, D.T. (1996). An Introduction to Practical Biochemistry. Tata McGraw-Hill Publishing Co. Ltd. New Delhi. 3rd edition.
- Ruzin, S.E. (1999). Plant Microtechnique and Microscopy, Oxford University Press, New York. U.S.A.
- Ausubel, F., Brent, R., Kingston, R. E., Moore, D.D., Seidman, J.G., Smith, J.A., Struhl, K. (1995). Short Protocols in Molecular Biology. John Wiley & Sons, 3rd edition.



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Practical

1. Experiments based on chemical calculations.
2. Plant microtechnique experiments.
3. The art of imaging of samples through microphotography and field photography.
4. Poster presentation on defined topics.
5. Technical writing on topics assigned.

Suggested Readings:

- Dawson, C. (2002). Practical research methods. UBS Publishers, New Delhi.
- Stapleton, P., Yondeowei, A., Mukanyange, J., Houten, H. (1995). Scientific writing for agricultural research scientists – a training reference manual. West Africa Rice Development Association, Hong Kong.
- Ruzin, S.E. (1999). Plant microtechnique and microscopy. Oxford University Press, New York, U.S.A.

Skill Enhancement Course (SEC)

SEC-1: Biofertilizers

Credits 02

SEC1T: Biofertilizers

Credits 02

Course Contents:

Unit- 1: General account about the microbes used as biofertilizer – Rhizobium – isolation, identification, mass multiplication, carrier based inoculants, Actinorrhizal symbiosis.

Unit- 2: *Azospirillum*: isolation and mass multiplication – carrier based inoculant, associative effect of different microorganisms. *Azotobacter*: classification, characteristics – crop response to *Azotobacter* inoculum, maintenance and mass multiplication.

Unit- 3: Cyanobacteria (blue green algae), *Azolla* and *Anabaena azollae* association, nitrogen fixation, factors affecting growth, blue green algae and *Azolla* in rice cultivation.

Unit- 4: Mycorrhizal association, types of mycorrhizal association, taxonomy, occurrence and distribution, phosphorus nutrition, growth and yield – colonization of VAM – isolation and inoculum production of VAM, and its influence on growth and yield of crop plants.

Unit-5: Organic farming – Green manuring and organic fertilizers, Recycling of biodegradable municipal, agricultural and Industrial wastes – biocompost making methods, types and method of vermicomposting – field Application.

Suggested Readings:

- Dubey, R.C., 2005 A Text book of Biotechnology S.Chand & Co, New Delhi.
- Kumaresan, V. 2005, Biotechnology, Saras Publications, New Delhi.
- John Jothi Prakash, E. 2004. Outlines of Plant Biotechnology. Emkay _Publication, New Delhi.

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- Sathe, T.V. 2004 Vermiculture and Organic Farming. Daya publishers.
- Subha Rao, N.S. 2000, Soil Microbiology, Oxford & IBH Publishers, New _Delhi.
- Vayas,S.C, Vayas, S. and Modi, H.A. 1998 Bio-fertilizers and organic _Farming Akta Prakashan, Nadiad

OR

SEC- 1: Floriculture

Credits 02

SEC1T: Floriculture

Course Contents:

Unit 1: Introduction: History of gardening; Importance and scope of floriculture and landscape gardening.

Unit 2: Nursery Management and Routine Garden Operations: Sexual and vegetative methods of propagation; Soil sterilization; Seed sowing; Pricking; Planting and transplanting; Shading; Stopping or pinching; Defoliation; Wintering; Mulching; Topiary; Role of plant growth regulators.

Unit 3:Ornamental Plants: Flowering annuals; Herbaceous perennials; Divine vines; Shade and ornamental trees; Ornamental bulbous and foliage plants; Cacti and succulents; Palms and Cycads; Ferns and Selaginellas; Cultivation of plants in pots; Indoor gardening; Bonsai.

Unit 4: Principles of Garden Designs: English, Italian, French, Persian, Mughal and Japanese gardens; Features of a garden (Garden wall, Fencing, Steps, Hedge, Edging, Lawn, Flower beds, Shrubbery, Borders, Water garden. Some Famous gardens of India.

Unit 5: Landscaping Places of Public Importance: Landscaping highways and Educational institutions.

Unit 6: Commercial Floriculture: Factors affecting flower production; Production and packaging of cut flowers; Flower arrangements; Methods to prolong vase life; Cultivation of Important cut flowers (Carnation, Aster, Chrysanthemum, Dahlia, Gerbera, Gladiolous, Marigold,Rose, Lilium, Orchids).

Unit 7: Diseases and Pests of Ornamental Plants.

Suggested Readings:

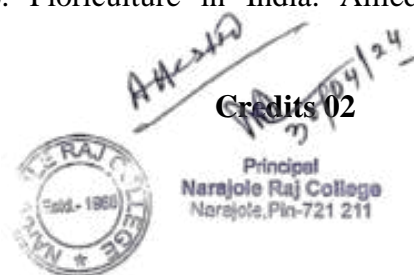
- Randhawa, G.S. and Mukhopadhyay, A. 1986. Floriculture in India. Allied Publishers.

SEC-2: Medicinal Botany

Credits 02

SEC-2T: Medicinal Botany

Course Contents:



Unit 1:

History, Scope and Importance of Medicinal Plants. Indigenous Medicinal Sciences; Definition and Scope - **Ayurveda**: History, origin, panchamahabhutas, saptadhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments, **Siddha**: Origin of Siddha medicinal systems, Basis of Siddha system, plants used in Siddha medicine. **Unani**: History, concept: Umoor-e- tabiya, tumors treatments/ therapy, polyherbal formulations.

Unit 2:

Conservation of endangered and endemic medicinal plants. Definition: endemic and endangered medicinal plants, Red list criteria; In situ conservation: Biosphere reserves, sacred groves, National Parks; Ex situ conservation: Botanic Gardens, Ethnomedicinal plant Gardens. Propagation of Medicinal Plants: Objectives of the nursery, its classification, important components of a nursery, sowing, pricking, use of green house for nursery production, propagation through cuttings, layering, grafting and budding.

Unit 3:

Ethnobotany and Folk medicines. Definition; Ethnobotany in India: Methods to study ethnobotany; Applications of Ethnobotany: National interacts, Palaeo-ethnobotany. Folk medicines of ethnobotany, ethnomedicine, ethnoecology, ethnic communities of India. Application of natural products to certain diseases- Jaundice, cardiac, infertility, diabetics, Blood pressure and skin diseases.

Suggested Readings:

- Trivedi P C, 2006. Medicinal Plants: Ethnobotanical Approach, Agrobios, India.
- Purohit and Vyas, 2008. Medicinal Plant Cultivation: A Scientific Approach, 2nd edn. Agrobios, India.

Or

SEC-2: Mushroom Culture Technology**Credits 02****SEC-2T: Mushroom Culture Technology****Course Contents:****Unit 1:**

Introduction, history. Nutritional and medicinal value of edible mushrooms; Poisonous mushrooms. Types of edible mushrooms available in India - *Volvariella volvacea*, *Pleurotus citrinopileatus*, *Agaricus bisporus*.

Unit 2:

Cultivation Technology : Infrastructure: substrates (locally available) Polythene bag, vessels, Inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag. Pure culture: Medium, sterilization, preparation of spawn, multiplication. Mushroom bed preparation - paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation - Low cost technology, Composting technology in mushroom production.



Unit 3:

Storage and nutrition: Short-term storage (Refrigeration - upto 24 hours) Long term Storage (canning, pickles, papads), drying, storage in salt solutions. Nutrition - Proteins - amino acids, mineral elements nutrition - Carbohydrates, Crude fibre content - Vitamins.

Unit 4:

Food Preparation: Types of foods prepared from mushroom. Research Centres - National level and Regional level. Cost benefit ratio - Marketing in India and abroad, Export Value.

Suggested Readings:

- Marimuthu, T. Krishnamoorthy, A.S. Sivaprakasam, K. and Jayarajan. R (1991) Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
- Swaminathan, M. (1990) Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore - 560018.
- Tewari, Pankaj Kapoor, S.C., (1988). Mushroom cultivation, Mittal Publications, Delhi.
- Nita Bahl (1984-1988) Hand book of Mushrooms, II Edition, Vol. I & Vol. II.

Generic Elective (GE)
[Interdisciplinary for other department]

GE-1: Biodiversity (Microbes, Algae, Fungi and Archegoniate) Credits 06

GE1T: Biodiversity (Microbes, Algae, Fungi and Archegoniate) Credits 04

Course Contents:

Unit 1: Microbes

Viruses – Discovery, general structure, replication (general account), DNA virus (T-phage); Lytic and lysogenic cycle, RNA virus (TMV); Economic importance; Bacteria – Discovery, General characteristics and cell structure; Reproduction – vegetative, asexual and recombination (conjugation, transformation and transduction); Economic importance.

Unit 2: Algae

General characteristics; Ecology and distribution; Range of thallus organization and reproduction; Classification of algae; Morphology and life-cycles of the following: *Nostoc*, *Chlamydomonas*, *Oedogonium*, *Vaucheria*, *Fucus*, *Polysiphonia*. Economic importance of algae.

Unit 3: Fungi

Introduction- General characteristics, ecology and significance, range of thallus organization, cell wall composition, nutrition, reproduction and classification; True Fungi- General characteristics, ecology and significance, life cycle of *Rhizopus* (Zygomycota) *Penicillium*, *Alternaria* (Ascomycota), *Puccinia*, *Agaricus* (Basidiomycota), Symbiotic



Associations-Lichens:General account, reproduction and significance; Mycorrhiza: ectomycorrhiza and endomycorrhiza and their significance.

Unit 4: Introduction to Archegoniate

Unifying features of archegoniates, Transition to land habit, Alternation of generations.

Unit 5: Bryophytes

General characteristics, adaptations to land habit, Classification, Range of thallus organization. Classification (up to family), morphology, anatomy and reproduction of *Marchantia* and *Funaria*. (Developmental details not to be included). Ecology and economic importance of bryophytes with special mention of *Sphagnum*.

Unit 6: Pteridophytes

General characteristics, classification, Early land plants (*Cooksonia* and *Rhynia*). Classification (up to family), morphology, anatomy and reproduction of *Selaginella*, *Equisetum* and *Pteris*. (Developmental details not to be included). Heterospory and seed habit, stellar evolution. Ecological and economical importance of Pteridophytes.

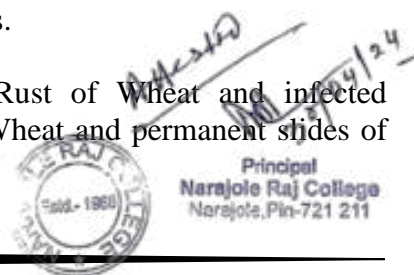
Unit 4: Gymnosperms

General characteristics; Classification (up to family), morphology, anatomy and reproduction of *Cycas* and *Pinus* (Developmental details not to be included). Ecological and economical importance.

GE1P: Biodiversity (Microbes, Algae, Fungi and Archegoniate) (Practical) Credits 02

Practical:

1. EMs/Models of viruses – T-Phage and TMV, Line drawing/Photograph of Lytic and Lysogenic Cycle.
1. Types of Bacteria from temporary/permanent slides/photographs; EM bacterium; Binary Fission; Conjugation; Structure of root nodule.
2. Gram staining.
3. Study of vegetative and reproductive structures of *Nostoc*, *Chlamydomonas* (electron micrographs), *Oedogonium*, *Vaucheria*, *Fucus** and *Polysiphonia* through temporary preparations and permanent slides. (* *Fucus* - Specimen and permanent slides).
4. *Rhizopus* and *Penicillium*: Asexual stage from temporary mounts and sexual Structures through permanent slides.
5. *Alternaria*: Specimens/photographs and tease mounts.
6. *Puccinia*: Herbarium specimens of Black Stem Rust of Wheat and infected Barberryleaves; section/tease mounts of spores on Wheat and permanent slides of both the hosts.



7. *Agaricus*: Specimens of button stage and full grown mushroom; Sectioning of gills of *Agaricus*.
8. Lichens: Study of growth forms of lichens (crustose, foliose and fruticose)
9. Mycorrhiza: ecto mycorrhiza and endo mycorrhiza (Photographs)
10. *Marchantia*- morphology of thallus, w.m. rhizoids and scales, v.s. thallus through gemmacup, w.m. gemmae (all temporary slides), v.s. antheridiophore, archegoniophore, l.s. sporophyte (all permanent slides).
11. *Funaria*- morphology, w.m. leaf, rhizoids, operculum, peristome, annulus, spores (temporary slides); permanent slides showing antheridial and archegonial heads, l.s. capsule and protonema.
12. *Selaginella*- morphology, w.m. leaf with ligule, t.s. stem, w.m. strobilus, w.m. microsporophyll and megasporophyll (temporary slides), l.s. strobilus (permanent slide).
14. *Equisetum*- morphology, t.s. internode, l.s. strobilus, t.s. strobilus, w.m. sporangiophore, w.m. spores (wet and dry)(temporary slides); t.s. rhizome (permanent slide).
13. Pteris- morphology, t.s. rachis, v.s. sporophyll, w.m. sporangium, w.m. spores (temporary slides), t.s. rhizome, w.m. prothallus with sex organs and young sporophyte (permanent slide).
14. *Cycas*- morphology (coralloid roots, bulbil, leaf), t.s. coralloid root, t.s. rachis, v.s. leaflet, v.s. micro sporophyll, w.m. spores (temporary slides), l.s. ovule, t.s. root (permanent slide).
15. *Pinus*- morphology (long and dwarf shoots, w.m. dwarf shoot, male and female), w.m. dwarf shoot, t.s. needle, t.s. stem, l.s./t.s. male cone, w.m. microsporophyll, w.m. microspores (temporary slides), l.s. female cone, t.l.s. & r.l.s. stem (permanent slide).

Suggested Readings:

- Kumar, H.D. (1999). Introductory Phycology. Affiliated East-West. Press Pvt. Ltd. Delhi. 2nd edition.
- Tortora, G.J., Funke, B.R., Case, C.L. (2010). Microbiology: An Introduction, Pearson Benjamin Cummings, U.S.A. 10th edition.
- Sethi, I.K. and Walia, S.K. (2011). Text book of Fungi & Their Allies, MacMillan Publishers Pvt. Ltd., Delhi.
- Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology, John Wiley and Sons (Asia), Singapore. 4th edition.
- Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R., (2005). Biology. Tata McGraw Hill, Delhi, India.
- Vashishta, P.C., Sinha, A.K., Kumar, A., (2010). Pteridophyta, S. Chand. Delhi, India.
- Bhatnagar, S.P. and Moitra, A. (1996). Gymnosperms. New Age International (P) Ltd Publishers, New Delhi, India.
- Parihar, N.S. (1991). An introduction to Embryophyta. Vol. I. Bryophyta. Central Book Depot, Allahabad.



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GE-2: Plant Ecology and Taxonomy

Credits 06

GE2T: Plant Ecology and Taxonomy

Credits 04

Course Contents:

Unit- 1: Introduction

Unit- 2: Ecological factors

Soil: Origin, formation, composition, soil profile. Water: States of water in the environment, precipitation types. Light and temperature: Variation Optimal and limiting factors; Shelford law of tolerance. Adaptation of hydrophytes and xerophytes

Unit -3: Plant communities

Characters; Ecotone and edge effect; Succession; Processes and types

Unit- 4: Ecosystem

Structure; energy flow trophic organisation; Food chains and food webs, Ecological pyramids production and productivity; Bio-geochemical cycling; Cycling of carbon, nitrogen and Phosphorous

Unit- 5: Phytogeography

Principle of Biogeographical zone; Endemism.

Unit- 6: Introduction to plant taxonomy

Identification, Classification, Nomenclature.

Unit- 7 : Identification

Functions of Herbarium, important herbaria and botanical gardens of the world and India; Documentation: Flora, Keys: single access and multi-access

Unit 8 : Taxonomic evidences from palynology, cytology, phytochemistry and molecular data.

Unit 9 : Taxonomic hierarchy

Ranks, categories and taxonomic groups

Unit 10: Botanical nomenclature

Principles and rules (ICN); ranks and names; binominal system, typification, author citation, valid publication, rejection of names, principle of priority and its limitations.

Unit 11: Classification

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Types of classification-artificial, natural and phylogenetic. Bentham and Hooker (upto series), Engler and Prantl (upto series).

Unit 12: Biometrics, numerical taxonomy and cladistics

Characters; variations; OTUs, character weighting and coding; cluster analysis; phenograms, cladograms (definitions and differences).

GE2P: Practical

Credit 02

Practical:

1. Study of instruments used to measure microclimatic variables: Soil thermometer, maximum and minimum thermometer, anemometer, psychrometer/hygrometer, rain gauge and lux meter.
2. Determination of pH, and analysis of two soil samples for carbonates, chlorides, nitrates, sulphates, organic matter and base deficiency by rapid field test.
3. Comparison of bulk density, porosity and rate of infiltration of water in soil of three habitats.
4. (a) Study of morphological adaptations of hydrophytes and xerophytes (four each).
(b) Study of biotic interactions of the following: Stem parasite (*Cuscuta*), Root parasite (*Orobancha*), Epiphytes, Predation (Insectivorous plants).
5. Determination of minimal quadrat size for the study of herbaceous vegetation in the college campus by species area curve method. (species to be listed)
6. Quantitative analysis of herbaceous vegetation in the college campus for frequency and comparison with Raunkiaer's frequency distribution law
7. Study of vegetative and floral characters of the following families (Description, V.S. flower, section of ovary, floral diagram/s, floral formula/e and systematic position according to Bentham & Hooker's system of classification): Brassicaceae - *Brassica*, *Alyssum* / *Iberis*; Asteraceae - *Sonchus*/*Launaea*, *Vernonia*/*Ageratum*, *Eclipta*/*Tridax*; Solanaceae - *Solanum nigrum*, *Withania*; Lamiaceae - *Salvia*, *Ocimum*; Liliaceae - *Asphodelus* / *Lilium* / *Allium*.
8. Mounting of a properly dried and pressed specimen of any wild plant with herbarium label (to be submitted in the record book).

Suggested Readings:

1. Kormondy, E.J. (1996). Concepts of Ecology. Prentice Hall, U.S.A. 4th edition.
2. Sharma, P.D. (2010) Ecology and Environment. Rastogi Publications, Meerut, India. 8th edition.
3. Simpson, M.G. (2006). *Plant Systematics*. Elsevier Academic Press, San Diego, CA, U.S.A.
4. Singh, G. (2012). *Plant Systematics: Theory and Practice*. Oxford & IBH Pvt. Ltd., New Delhi. 3rd edition

GE-3: Economic Botany and Plant Biotechnology

Credits 06

GE3T: Economic Botany and Plant Biotechnology

Credits 04

Course Contents:



Unit 1: Origin of Cultivated Plants

Concept of centres of origin, their importance with reference to Vavilov's work.

Unit 2: Cereals

Wheat - Origin, morphology, uses

Unit 3: Legumes

General account with special reference to Gram and soybean

Unit 4: Spices

General account with special reference to clove and black pepper (Botanical name, family, part used morphology and uses)

Unit 5: Beverages

Tea (morphology, processing, uses)

Unit 6: Oils and Fats

General description with special reference to groundnut

Unit 7: Fibre Yielding Plants

General description with special reference to Cotton (Botanical name, family, part used, morphology and uses)

Unit 8: Introduction to biotechnology

Unit 9: Plant tissue culture

Micropropagation ; haploid production through androgenesis and gynogenesis; brief account of embryo and endosperm culture with their applications

Unit 10: Recombinant DNA Techniques

Blotting techniques: Northern, Southern and Western Blotting, DNA Fingerprinting; Molecular DNA markers i.e. RAPD, RFLP, SNPs; DNA sequencing, PCR and Reverse Transcriptase-PCR. Hybridoma and monoclonal antibodies, ELISA and Immuno detection. Molecular diagnosis of human disease, Human gene Therapy.

GE3P: Economic Botany and Plant Biotechnology

Practical:

1. Study of economically important plants : Wheat, Gram, Soybean, Black pepper, Clove Tea, Cotton, Groundnut through specimens, sections and micro chemical tests

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2. Familiarization with basic equipments in tissue culture.
3. Study through photographs: Anther culture, somatic embryogenesis, endosperm and embryo culture; micropropagation.
4. Study of molecular techniques: PCR, Blotting techniques, AGE and PAGE.

Suggested Readings:

- Kochhar, S.L. (2011). Economic Botany in the Tropics, MacMillan Publishers India Ltd., New Delhi. 4th edition.
- Bhojwani, S.S. and Razdan, M.K., (1996). Plant Tissue Culture: Theory and Practice. Elsevier Science Amsterdam. The Netherlands.
- Glick, B.R., Pasternak, J.J. (2003). Molecular Biotechnology- Principles and Applications of recombinant DNA. ASM Press, Washington.

GE-4: Plant Anatomy and Embryology

Credits 06

GE4T: Plant Anatomy and Embryology

Credits 04

Course Contents:

Unit 1: Meristematic and permanent tissues

Root and shoot apical meristems; Simple and complex tissues

Unit 2: Organs

Structure of dicot and monocot root stem and leaf.

Unit 3: Secondary Growth

Vascular cambium – structure and function, seasonal activity. Secondary growth in root and stem, Wood (heartwood and sapwood)

Unit 4: Adaptive and protective systems

Epidermis, cuticle, stomata; General account of adaptations in xerophytes and hydrophytes.

Unit 5: Structural organization of flower

Structure of anther and pollen; Structure and types of ovules; Types of embryo sacs, organization and ultrastructure of mature embryo sac.

Unit 6: Pollination and fertilization

Pollination mechanisms and adaptations; Double fertilization; Seed-structure appendages and dispersal mechanisms.

Unit 7: Embryo and endosperm

Endosperm types, structure and functions; Dicot and monocot embryo; Embryo endosperm relationship

Unit 8: Apomixis and polyembryony

Definition, types and Practical applications



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GE4P: Plant Anatomy and Embryology**Credits 02****Practical:**

1. Study of meristems through permanent slides and photographs.
2. Tissues (parenchyma, collenchyma and sclerenchyma); Macerated xylary elements, Phloem (Permanent slides, photographs)
3. Stem: Monocot: *Zea mays*; Dicot: *Helianthus*; Secondary: *Helianthus* (only Permanent slides).
4. Root: Monocot: *Zea mays*; Dicot: *Helianthus*; Secondary: *Helianthus* (only Permanent slides).
5. Leaf: Dicot and Monocot leaf (only Permanent slides).
6. Adaptive anatomy: Xerophyte (*Nerium* leaf); Hydrophyte (*Hydrilla* stem).
7. Structure of anther (young and mature), tapetum (amoeboid and secretory) (Permanent slides).
8. Types of ovules: anatropous, orthotropous, circinotropous, amphitropous/campylotropous.
9. Female gametophyte: *Polygonum* (monosporic) type of Embryo sac Development (Permanent slides/photographs).
10. Ultrastructure of mature egg apparatus cells through electron micrographs.
11. Pollination types and seed dispersal mechanisms (including appendages, aril, caruncle) (Photographs and specimens).
12. Dissection of embryo/endosperm from developing seeds.
13. Calculation of percentage of germinated pollen in a given medium.

Suggested Readings:

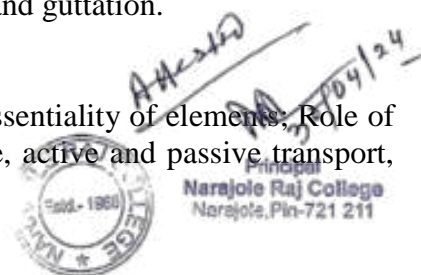
1. Bhojwani, S.S. & Bhatnagar, S.P. (2011). Embryology of Angiosperms. Vikas Publication House Pvt. Ltd. New Delhi. 5th edition.
2. Mauseth, J.D. (1988). Plant Anatomy. The Benjamin/Cummings Publisher, USA.

OR**GE-4: Plant Physiology and Metabolism****Credits 06****GE4T: Plant Physiology and Metabolism****Credits 04****Course Contents:****Unit 1: Plant-water relations**

Importance of water, water potential and its components; Transpiration and its significance; Factors affecting transpiration; Root pressure and guttation.

Unit 2: Mineral nutrition

Essential elements, macro and micronutrients; Criteria of essentiality of elements; Role of essential elements; Transport of ions across cell membrane, active and passive transport, carriers, channels and pumps.

Unit 3: Translocation in phloem.

C omposition of phloem sap, girdling experiment; Pressure flow model; Phloem loading and unloading

Unit 4: Photosynthesis

Photosynthetic Pigments (Chl a, b, xanthophylls, carotene); Photosystem I and II, reaction center, antenna molecules; Electron transport and mechanism of ATP synthesis; C₃, C₄ and CAM pathways of carbon fixation; Photorespiration.

U nit 5: Respiration

Glycolysis, anaerobic respiration, TCA cycle; Oxidative phosphorylation, Glyoxylate, Oxidative Pentose Phosphate Pathway.

U nit 6: Enzymes

Structure and properties; Mechanism of enzyme catalysis and enzyme inhibition.

U nit 7: Nitrogen metabolism

Biological nitrogen fixation; Nitrate and ammonia assimilation.

Unit 8: Plant growth regulators

Discovery and physiological roles of auxins, gibberellins, cytokinins, ABA, ethylene.

Unit 9: Plant response to light and temperature

Photoperiodism (SDP, LDP, Day neutral plants); Phytochrome (discovery and structure), red and far red light responses on photomorphogenesis; Vernalization.

GE4P: Plant Physiology and Metabolism

Credits 02

Practical

1. Determination of osmotic potential of plant cell sap by plasmolytic method.
2. To study the effect of two environmental factors (light and wind) on transpiration by excised twig.
3. Calculation of stomatal index and stomatal frequency of a mesophyte and a xerophyte.
4. Demonstration of Hill reaction.
5. Demonstrate the activity of catalase and study the effect of pH and enzyme concentration.
6. To study the effect of light intensity and bicarbonate concentration on O₂ evolution in photosynthesis.
7. Comparison of the rate of respiration in any two parts of a plant.
8. Separation of amino acids by paper chromatography.

Demonstration experiments (any four)

1. Bolting.
2. Effect of auxins on rooting.
3. Suction due to transpiration.
4. R.Q.
5. Respiration in roots.



Suggested Readings

- Taiz, L., Zeiger, E., MØller, I.M. and Murphy, A (2015). Plant Physiology and Development. Sinauer Associates Inc. USA. 6th edition.
- Hopkins, W.G., Huner, N.P., (2009). Introduction to Plant Physiology. John Wiley & Sons, U.S.A. 4th Edition.
- Bajracharya, D., (1999). Experiments in Plant Physiology- A Laboratory Manual. Narosa Publishing House, New Delhi.





Routine : BOTANY: July'2022 - Dec'2022 Teacher wise class and syllabus distribution

SEM	Paper	UKK	NB	BH	PG	SKD	AC
I (H)	C1T	2 (U: 3,4,5)				2 (U: 1,2,6,7)	
	C1P	1 (U: Microbi				1 (U: Phycolo	
	C2T		2 (U: 1-4)		2 (U: 5-7)		
	C2P		1 (U: 1-5)		1 (U: 6-10)		
	GE1T				1 (U: 4-5)	2 (U: 1-3)	1 (U: 6-7)
	GE1P					1 (U: 1-8)	1 (U: 9-15)
I (G)	DSC - 1AT	2 (U: 4-7)		2 (U: 1-3)			
	DSC - 1AP			2 (U: All)			
III (H)	C5T		2 (U: 1-4)			2 (U: 5-6)	
	C5P		1 (U: 1-7)			1 (U: 8-12)	
	C6T	1 (U: 4-7)		1 (U: 1-3)	2 (U: 8-11)		
	C6P	1 (U: 1-6)			1 (U: 7-12)		
	C7T		1 (U: 3-4)		1 (U- 5-7)		2 (U: 1-2)
	C7P		1 (U: 1-7)				1 (U: 8-11)
	SEC - 1T			1 (U: 1-3)		1 (U: 4-6)	
	GE3T		2 (U: 5-8, 10)	2 (U: 1-4, 9)			
	GE3P		1 (U: 1, 4)	1 (U: 1,2,3)			
III (G)	DSC – 1CT	1 (U: 4-5)				1 (U: 1-3)	2 (U:6-8)
	DSC – 1CP					1 (U: 1-6)	1 (U: 7-13)
	SEC – 1T		1 (U: 4-5)	1 (U: 1-3)			
V (H)	C11T				2 (U:6-8)		2 (U: 1-5)
	C11P				1 (U: 4-7)		1 (U: 1-3)
	C12T	2 (U: 5-7)		1 (U: 3-4)		1 (U: 1-2)	
	C12P	1 (U: 4-8)		1 (U: 1-3)			
	DSE -1T		2 (U: 6-9)	2 (U: 1-5)			
	DSE -1P		1 (U: 3-5)	1 (U: 1-2)			
	DSE -2T	2 (U: 1-2)		1 (U: 5)	1 (U: 3-4)		
	DSE -2P	1 (U: 1,2)			1 (U: 3,4)		
V (G)	DSE -1AT	2 (U: 5-7)	1 (U: 1-4)		1 (U: 8-10)		
	DSE -1AP	1 (U: 1)			1 (U: 2-4)		
	SEC – 3T		1 (U: 3-4)	1 (U: 1-2)			
Total credit: 118		12T+5P=22	12T+5P=22	12T+5P=22	12T+5P=22	7T+4P=15	7T+4P=15

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Website: <http://www.narajolerajcollege.ac.in>



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Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Dept. of Botany Academic Session: 2022-23 (July'22 - Dec'22)													Semester: ODD	
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C1T	02	C1P	02	DSC-1AT	02	C6T	01	C6P	02	DSC-1CT	01	C12T	02	
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C12P	02	DSE 2T	02	DSE 2P	02	DSE1AT	02	DSE1AP	02	X	X	X	X	22
Prof. Nandita Bhakat (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C2T	02	C2P	02	C5T	02	C5P	02	C7T	01	C7P	02	GE3T	02	
Prof. Nandita Bhakat (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
GE3P	02	SEC-1T	01	DSE 1T	02	DSE1P	02	DSE1AT	01	SEC3T	01	X	X	22
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
DSc1AT	02	DSC1A P	04	C6T	01	SEC1T	01	GE3T	02	GE3P	02	SEC1T	01	
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C12T	01	C12P	02	DSE1T	02	DSE1P	02	DSE2T	01	SEC3T	01	X	X	22
Name of the Department: Dept. of Botany Academic Session: 2022-23 (July'22 - Dec'22)													Semester: ODD	



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Data Capturing Format (DCF) for Distribution of Papers & Classes

Dr. Prithwi Ghosh (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C2T	02	C2P	02	GE1T	01	C6T	02	C6P	02	C7T	01	C11T	02	
Dr. Prithwi Ghosh (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C11P	02	DSE2T	01	DSE2P	02	DSE1AT	01	DSE1AP	02	C5T	02	X	X	22
Prof. Sanjay Kumar Datta (State Aided College Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C1T	02	C1P	02	GE1T	02	GE1P	02	C5P	02	SEC1T	01	DSC1CT	01	
Prof. Sanjay Kumar Datta (State Aided College Teacher)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
DSC1CP	02	C12T	01	X	X	X	X	X	X	X	X	X	X	15
Prof. Arpita Chakraborty (State Aided College Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
GE1T	01	GE1P	02	C7T	02	C7P	02	DSC1CT	02	DSC1CP	02	C11T	02	
Prof. Arpita Chakraborty (State Aided College Teacher)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C11P	02	X	X	X	X	X	X	X	X	X	X	X	X	15



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Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Dept. of Botany													Semester: EVEN	
Academic Session: 2022-23 (Jan'23-June'23)														
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C4T	02	C4P	02	DSC2BT	02	C8T	01	C8P	02	DSC2DT	01	C13T	02	
Dr. Uttam Kumar Kanp (Assistant Professor - Stage 2 & Head)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C13P	02	C14T	02	C14P	02					X	X	X	X	18
Prof. Nandita Bhakat (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C3T	02	C8T	03	C8P	02	C10T	02	C10P	02	GE4T	02	GE4P	02	
Prof. Nandita Bhakat (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C13T	02	C13P	02									X	X	19
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
DSC2BT	02	DSC2BP	04	C9T	01	SEC2T	01	GE4T	02	GE4P	02	C14T	02	
Prof. Bangamoti Hansda (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
C14P	02	DSE4T	02	DSE4P	02							X	X	20

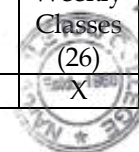


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Data Capturing Format (DCF) for Distribution of Papers & Classes

Name of the Department: Dept. of Botany													Semester: EVEN	
Academic Session: 2022-23 (Jan'23-June'23)														
Dr. Prithwi Ghosh (Assistant Professor - Stage 1)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C3P	02	C4T	02	C4P	02	GE2T	01	C9T	02	C9P	02	SEC2T	01	
Dr. Prithwi Ghosh (Assistant Professor - Stage 1)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
DSE3T	02	DSE3P	02	DSE4T	02	DSE4P	02					X	X	20
Prof. Sanjay Kumar Datta (State Aided College Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
C3T	02	C3P	02	GE2T	02	GE2P	02	C9T	01	C9P	02	DSC2D T	01	
Prof. Sanjay Kumar Datta (State Aided College Teacher)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
DSC2D P	02	X	X	X	X	X	X	X	X	X	X	X	X	14
Prof. Arpita Chakraborty (State Aided College Teacher)														
Paper Code (1)	Weekly Classes (2)	Paper Code (3)	Weekly Classes (4)	Paper Code (5)	Weekly Classes (6)	Paper Code (7)	Weekly Classes (8)	Paper Code (9)	Weekly Classes (10)	Paper Code (11)	Weekly Classes (12)	Paper Code (13)	Weekly Classes (14)	Total Weekly Classes
GE2T	01	GE2P	02	C10T	02	C10P	02	DSC2D T	02	DSC2D P	02	DSE3T	02	
Prof. Arpita Chakraborty (State Aided College Teacher)														
Paper Code (15)	Weekly Classes (16)	Paper Code (17)	Weekly Classes (18)	Paper Code (19)	Weekly Classes (20)	Paper Code (21)	Weekly Classes (22)	Paper Code (23)	Weekly Classes (24)	Paper Code (25)	Weekly Classes (26)	Paper Code (27)	Weekly Classes (28)	Total Weekly Classes
DSE3P	02	X	X	X	X	X	X	X	X	X	X	X	X	15



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Website: <http://www.narajolerajcollege.ac.in>

TEACHING PLAN

Name of the Department: Mathematics

Name of the Teacher: Dr. Shreyasi Jana

Name and Distinctive No. of the paper: Real Analysis (C3T)

Session: 2022-2023

Semester: II

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
1.	(Unit-3) Series	Introduction to infinite series, preliminaries and examples
2.		Basic properties of infinite series
3.		Convergence and divergence of infinite series
4.		Cauchy criterion for convergence of infinite series
5.		Discussion on different types of convergence tests of series
6.		Comparison test, problems
7.		Limit comparison test, problems
8.		Ratio test, problems
9.		Cauchy's nth root test and testing of convergence by using Cauchy's nth root test
10.		Idea for Integral test
11.		Discussion on Alternating series
12.		Idea for Leibniz test and convergence test of alternating series by Leibniz test
13.		Introduction to Absolute and conditional convergence of alternating series
14.		Problems for testing absolute and conditional convergence of infinite series
15.	Graphical Demonstration (Teaching Aid)	Tutorial on different types of convergence tests of infinite series
16.		Plotting of recursive sequences.
17.		Study the convergence of sequences through plotting
18.		Problems
19.		Verify Bolzano-Weierstrass theorem through plotting of sequences and hence identify convergent subsequences from the plot
20.	Broad topic in	Problems
Sr. No. of		Topic to be covered in the Lecture



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Lect.	university syllabus	
21.		Study the convergence/divergence of in finite series by plotting their sequences of partial sum
22.		Problems
23.		Cauchy's root test by plotting nth roots
24.		Problems
25.		Ratio test by plotting the ratio of nth and (n+1)th term
26.		Problems
27.		Tutorial on plotting
28.		Doubt Clearing
29.		Previous year university question papers discussion
30.		Class Test

Dept. Of Mathematics



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TEACHING PLAN

Name of the Department: Mathematics

Name of the Teacher: Dr. Shreyasi Jana

Name and Distinctive No. of the paper: Multivariate Calculus (C9T)

Session: 2022-2023

Semester: IV

No. of Sl. No.	Broad Topic in University Syllabus	Topic to be covered in the Lecture
1.	(UNIT- 1) Functions of Several Variables	Introduction to Functions of several variables
2.		Limit and continuity of functions of two or more variables
3.		Problems
4.		Partial differentiation
5.		Total differentiability and differentiability
6.		Problems discussion
7.		Sufficient condition for differentiability
8.		Chain rule for one and two independent parameters
9.		Examples
10.		Directional derivatives
11.		The gradient
12.		Maximal and normal property of the gradient
13.		Tangent planes
14.		Extrema of functions of two variables Problems
15.		Method of Lagranges multiplier
16.		Constrained optimization problems
17.	Problem Discussion	Problem discussion on chain rules
18.		Problem discussion on testing maxima or minima of functions of several variables
19.		Discussion on previous year University question papers
20.		Doubt clearing
21.		Double integration over rectangular region
22.		Examples
23.		Double integration over non-rectangular region
24.		Examples



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TEACHING PLAN

Name of the Department: Mathematics

Name of the Teacher: Dr. Shreyasi Jana

Name and Distinctive No. of the paper: Partial Differential Equations and Applications (C11T)

Session: 2022-2023

Semester: V

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
1.	(Unit-I) Partial Differential Equation	Introduction to Partial Differential Equation(PDE)-Basic concepts, definition, mathematical problems
2.		First order PDE and its classification
3.		Discussion of some problems
4.		Construction and Geometrical Interpretation of first order pde
5.		Problem Solving
6.		Method of Characteristics for obtaining General Solution of Quasi Linear Equations
7.		Canonical Forms of First order Linear Equations
8.		Discussion of different problems
9.		Method of Separation of Variables for solving first order pde
10.		Worked examples
11.		Doubt clearing
12.	(Unit-II) Heat, Wave and Laplace Equation	Derivation of Heat equation with examples
13.		Solving problems of heat equation
14.		Derivation of Wave equation
15.		Solving problems of wave equation
16.		Derivation of Laplace equation with examples



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17.		Classification of second order linear equations as hyperbolic, parabolic or elliptic
18.		Reduction of second order Linear Equations to canonical forms
19.		Problem Discussion
20.		Doubt Clearing
21.		Class Test
22.	(Unit-III) Vibrating String and Heat Conduction Problem	Cauchy problem of an infinite string
23.		Problems
24.		Initial Boundary Value Problems
25.		Semi-Infinite String with a fixed end
26.		Semi-Infinite String with a Free end
27.		Discussion of problems on vibrating string
28.		Equations with non-homogeneous boundary conditions
29.		Non- Homogeneous Wave Equation
30.		Problem solving
31.		Method of separation of variables
32.		Problems
33.		Solving the Vibrating String Problem
34.		Solving the Heat Conduction problem
35.		Examples
36.	Solving Various Problems	
37.	Doubt Clearing	
38.	Tutorial	
39.		Introduction to Central force
40.		Problems of central orbit
41.		Discussion on Constrained motion
42.		Examples



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43.	(Unit-IV) Dynamics	Problems of varying mass
44.		Solving different problems of constrained motion
45.		Derivation of tangent and normal components of acceleration
46.		Problems
47.		Discussion on modelling ballistics and planetary motion
48.		Different problems on planetary motion
49.		Kepler's second law
50.		Examples
51.		Problems
52.		Doubt Clearing
53.		Doubt Clearing
54.		Tutorial
55.		Different problem solving
56.		Previous year question papers solving
57.		Previous year question papers solving
58.		Different problem solving
59.		Summary
60.		Class Test



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TEACHING PLAN

Name of the Department: Mathematics

Name of the Teacher: Dr. Shreyasi Jana

Name and Distinctive No. of the paper: Metric Spaces & Complex Analysis (C13T)

Session:2022-2023

Semester: VI

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be covered in the Lecture
1.	(UNIT- 3) Complex Numbers: Limit, Continuity and Differentiability	Introduction to complex numbers
2.		Limits, Limits involving the point at infinity
3.		Continuity
4.		Properties of complex numbers
5.		Region in the complex plane
6.		Functions of complex variables
7.		Definition of Mappings, examples
8.		Discussion on Derivatives
9.		Differentiation formulas
10.		Cauchy- Riemann equations
11.		Problems
12.		Sufficient conditions for differentiability
13.		Problem Discussion
14.		Tutorial on Cauchy Riemann equations
15.		Doubt Clearing and previous year university questions discussion
16.	(Unit 4) Analytic Function	Examples of analytic functions
17.		Exponential function
18.		Logarithmic function
19.		Trigonometric function
20.	Contour Integrals	Derivatives of functions
21.		Contours
22.		Contour integrals and its examples
23.		Upper bounds for moduli of contour integrals
24.		Cauchy- Goursat theorem
25.	Broad topic in university Syllabus	Examples
Sr. No. of Lect.	university Syllabus	Topic to be covered in the Lecture



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TEACHING PLAN

26.		Cauchy integral formula
27.		Problem discussion
28.		Tutorial
29.		Tutorial
30.	(Unit 5) Liouville's theorem	Liouville's theorem
31.		The fundamental theorem of algebra
32.		Convergence of sequences and series
33.		Examples
34.		Taylor series and its examples
35.	(Unit -6) Laurent Series and Power Series	Laurent series and its examples
36.		Power Series
37.		Absolute and uniform convergence
38.		Problem Discussion
39.		Doubt Clearing and previous year university questions discussion
40.		Class test



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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PHYCOLOGY AND MICROBIOLOGY
(CC1 T & P)

Session: 2022-2023 (JULY'2022 –DEC'2022)

Semester: I (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 3: Bacteria	Discovery and general characteristic of bacteria.
Lecture 02		Eubacteria and wall less forms
Lecture 03		Cell structure, Nutrition types of bacteria.
Lecture 04		Reproduction- vegetative and asexual
Lecture 05		Reproduction-Recombination.
Lecture 06	Unit 4: Algae	General characteristics of algae.
Lecture 07		Ecology, distribution, range of thallus organization of algae.
Lecture 08		Cell structure and components
Lecture 09		Cell wall, Pigment system, reserve food of Algae.
Lecture 10		Types of flagella, methods of reproduction of algae.
Lecture 11		Classification: Criteria, system of Fritsch.
Lecture 12		Evolutionary classification of Lee and Van-den Hoeke t. al.
Lecture 13		Significant contributions of important phycologists.
Lecture 14		Role of algae in the environment, agriculture, biotechnology and industry.
Lecture 15	Unit 5: Cyanophyta and Xanthophyta	Cyanophyta: Ecology and occurrence, range of thallus organization, cell structure, reproduction, morphology.
Lecture 16		Xanthophyta: Ecology and occurrence range of thallus organization, cell structure, reproduction, morphology.



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Lecture 17		Life cycle of <i>Nostoc</i> .
Lecture 18		Life cycle of <i>Vaucheria</i> .
Lecture 19		Revision
Lecture 20		Revision
Lecture 21		Revision
Practical 1	Practical Microbiology	Electron micrographs/Models of viruses – T-Phage and TMV, Line drawings/ Photographs of Lytic and Lysogenic Cycle.
Practical 2		Types of Bacteria to be observed from temporary/permanent slides/photographs.
Practical 3		Electron micrographs of bacteria, binary fission, endospore, conjugation, root Nodule.
Practical 4		Gram staining.
Practical 5		Endospore staining with malachite green using the (endospores taken from soil bacteria).
Practical 6		Study of bacteria from root nodules/Curd sample.

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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: ECONOMIC BOTANY (CC6 T & P)

Session: 2022-2023 (JULY'2022 – DEC'2023)

Semester: III (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 4: Source of sugars and starches	Morphology cultivation, management and processing of sugarcane, products and by-products of sugarcane industry.
Lecture 02		Potato – morphology, propagation & uses.
Lecture 03	Unit 5: Spices	Listing of important spices, their family and part used. Economic importance with special reference to fennel, saffron, clove and black pepper
Lecture 4	Unit 6: Beverages	Tea: morphology, processing & uses.
Lecture 5		Coffee: morphology, processing & uses.
Lecture 6	Unit 7: Sources of oils and fats	General description, classification, extraction, their uses and health implications of groundnut, coconut, linseed (Botanical name, family & uses).
Lecture 7		General description, classification, extraction, their uses and health implications of soybean, mustard and coconut (Botanical name, family & uses).
Lecture 8		Essential Oils: General account, extraction methods, comparison with fatty oils & their uses.
Lecture 9		Revision
Lecture 10		Revision
Lecture 12		Revision
Practical 1	Practical Economic botany	Cereals: Wheat (habit sketch, L, S/T.S. grain, starch grains, micro-chemical tests) Rice (habit sketch,



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		study of paddy and grain, starch grains, micro-chemical tests).
Practical 2		Legumes: Soybean, Groundnut, (habit, fruit, seed structure, micro-chemical tests).
Practical 3		Sources of sugars and starches: Sugarcane (habit sketch; cane juice- micro-chemical tests), Potato (habit sketch, tuber morphology, T.S. tuber to show localization of starch grains, w.m. starch grains, micro-chemical tests).
Practical 4		Spices: Black pepper, Fennel and Clove (habit and sections).
Practical 5		Beverages: Tea (plant specimen, tea leaves), Coffee (plant specimen, beans).
Practical 6		Sources of oils and fats: Coconut- T.S. nut, Mustard–plant specimen, seeds; tests for fats in crushed seeds



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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT PHYSIOLOGY (CC12 T & P)

Session: 2022-2023 (JULY'2022 –DEC'2022)

Semester: V (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 5: Plant growth regulators	Discovery, chemical nature (basic structure), bioassay and physiological roles of - Auxin,
Lecture 02		-Gibberellins,,
Lecture 03		-Cytokinin
Lecture 04		-Abscisic acid,
Lecture 05		-Ethylene,
Lecture 06		-Brassinosteroids and Jasmonic acid
Lecture 07	Unit 6: Physiology of flowering	Photoperiodism, flowering stimulus, florigen concept,
Lecture 08		vernalization,
Lecture 09		seed dormancy.
Lecture 10	Unit 7: Phytochrome, crytochromes and phototropins	Discovery, chemical nature, role in photomorphogenesis.
Lecture 11		low energy responses (LER) and high irradiance responses (HIR), mode of action.
Lecture 12		Revision
Lecture 13		Revision
Lecture 14		Revision
Practical 1	Practical	Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a mesophyte.
Practical 2		Calculation of stomatal index and stomatal frequency from the two surfaces of leaves of a xerophyte.
Practical 3		To calculate the area of an open stoma and percentage of leaf area open through stomata in a mesophyte (both surfaces).
Practical 4		To calculate the area of an open stoma and percentage of leaf area open through stomata in a



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		xerophyte (both surfaces).
Practical 5		To study the phenomenon of seed germination (effect of light).
Practical 6		To study the effect of different concentrations of IAA on <i>Avena</i> coleoptile elongation (IAA Bioassay).
Practical 7		To study the induction of amylase activity in germinating barley grains.
Practical 8		To demonstrate suction due to transpiration.
Practical 9		Fruit ripening/Rooting from cuttings (Demonstration).
Practical 10		Bolting experiment/ <i>Avena</i> coleoptiles bioassay (demonstration).



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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT BREEDING (DSE 2T & P)

Session: 2022-2023 (JULY'2022 –DEC'2022)

Semester: V (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Theory Unit 1: Plant breeding	Introduction and objectives of breeding systems.
Lecture 02		Modes of reproduction in crop plants.
Lecture 03		Important achievements and undesirable consequences of plant breeding.
Lecture 04	Unit 2: Methods of Crop improvement	Introduction: Centres of origin and domestication of crop plants
Lecture 05		plant genetic resources; Acclimatization.
Lecture 067		Selection methods: For self pollinated propagated plants.
Lecture 07		cross pollinated and vegetative propagated plants.
Lecture 08		Hybridization: For self, propagated plants – Procedure, advantages and limitations.
Lecture 9		Hybridization: For cross propagated plants – Procedure, advantages and limitations.
Lecture 10		Hybridization: For vegetative propagated plants – Procedure, advantages and limitations.
Lecture 11		Revision
Lecture 12		Revision
Lecture 13		Revision
Practical 1	Practical Plant Breeding	Identification of offspring's having parental genotypes and recombinant genotypes, based on combination of morphological attributes in a dihybrid cross.
Practical 2		Processes of emaculation – By applying higher temperature.



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Practical 3		Processes of emaculation –By amputing anthers
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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: ARCHEGONIATE (CC 4 T)

Session: 2022-2023 (JAN'2023 –JUNE'2023)

Semester: II (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit 3: Type studies- Bryophytes	Classification (up to family),
Lecture 02		Morphology, anatomy and reproduction of - <i>Riccia</i>
Lecture 03		- <i>Marchantia</i>
Lecture 04		- <i>Pellia</i>
Lecture 05		- <i>Porella</i>
Lecture 06		- <i>Anthoceros</i>
Lecture 07		- <i>Sphagnum</i>
Lecture 08		- <i>Funaria and Pogonatum</i>
Lecture 09		Reproduction and evolutionary trends in <i>Riccia</i> , <i>Marchantia</i> , <i>Plagichasma</i> , <i>Anthoceros</i> and <i>Funaria</i> (developmental stages not included).
Lecture 10		Ecological and economic importance of bryophytes with special reference to <i>Sphagnum</i> .
Lecture 11		Revision
Lecture 12		Revision
Lecture 13		Revision



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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: MOLECULAR BIOLOGY_(CC8 T)

Session: 2022-2023 (JAN'2023 –JUNE'2023)

Semester: IV (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit- 1: Nucleic acids: Carriers of genetic information	Historical perspective;
Lecture 02		DNA as the carrier of genetic information - Griffith's experiment.
Lecture 03		-Hershey & Chase experiment.
Lecture 04		-Avery, McLeod & McCarty experiment.
Lecture 05		-Fraenkel-Conrat's experiment.
Lecture 06	Unit -2. The Structures of DNA and RNA / Genetic Material	DNA Structure: Miescher to Watson and Crick- historic perspective.
Lecture 07		DNA structure, Salient features of double helix.
Lecture 08		Types of DNA.
Lecture 09		Types of genetic material, denaturation and renaturation.
Lecture 10		Cot curves; Organization of DNA-Prokaryotes, Viruses, Eukaryotes.
Lecture 11		RNA Structure.
Lecture 12		Organelle DNA - mitochondria and chloroplast DNA.
Lecture 13		The Nucleosome.
Lecture 14		Chromatin structure- Euchromatin.
Lecture 15		Heterochromatin- Constitutive and Facultative heterochromatin.
Lecture 16	Unit- 3: The replication of DNA	Chemistry of DNA synthesis (Kornberg's discovery);
Lecture 17		General principles – bidirectional, semiconservative and semi discontinuous replication,
Lecture 18		RNA priming;
Lecture 19		Various models of DNA replication, including rolling



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		circle,
Lecture 20		θ (theta) mode of replication,
Lecture 21		replication of linear ds-DNA,
Lecture 22		replication of the 5' end of linear chromosome;
Lecture 23		Enzymes involved in DNA replication.
Lecture 24		Revision
Lecture 25		Revision



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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT METABOLISM (CC13 T)

Session: 2022-2023 (JAN'2023 –JUNE'2023)

Semester: VI (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit 1: Concept of metabolism	Introduction, anabolic and catabolic pathways.
Lecture 02		Regulation of metabolism.
Lecture 03		Role of regulatory enzymes (allosteric, covalent modulation and Isozymes).
Lecture 04	Unit 2: Carbon assimilation	Historical background, photosynthetic pigments.
Lecture 05		Role of photosynthetic pigments (chlorophylls and accessory pigments).
Lecture 06		Antenna molecules and reaction centres,
Lecture 07		Photochemical reactions, photosynthetic electron transport, PSI, PSII, Q cycle,
Lecture 08		CO ₂ reduction,
Lecture 09		photorespiration,
Lecture 10		C ₄ pathways;
Lecture 11		Crassulacean acid metabolism;
Lecture 12		Factors affecting CO ₂ reduction.
Lecture 13		Unit 3: Carbohydrate metabolism
Lecture 14	Unit 4: Carbon Oxidation	Glycolysis.
Lecture 15		Fate of pyruvate, regulation of glycolysis.
Lecture 16		Oxidative pentose phosphate pathway.
Lecture 17		Oxidative decarboxylation of pyruvate.
Lecture 18		Regulation of PDH, NADH shuttle.
Lecture 19		TCA cycle.
Lecture 20		Amphibolic role, anaplerotic



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		reactions, regulation of the cycle.
Lecture 21		Mitochondrial electron transport.
Lecture 22		Oxidative phosphorylation.
Lecture 23		Cyanide-resistant respiration.
Lecture 24		Factors affecting respiration.
Lecture 25		Revision
Lecture 26		Revision



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Name of the Department: BOTANY

Name of the Teacher: DR. UTTAM KUMAR KANP

Name and Distinctive Number of the Paper: PLANT BIOTECHNOLOGY(CC14T)

Session: 2022-2023 (JAN'2023 –JUNE'2023)

Semester: VI (HONOURS)

Sr. No. of Lecture	Broad Topic in University Syllabus	Topic to be Covered in the Lecture
Lecture 01	Unit -1: Plant Tissue Culture	Historical perspective.
Lecture 02		Composition of media.
Lecture 03		Nutrient and hormone requirements (role of vitamins and hormones).
Lecture 04		Totipotency; Organogenesis.
Lecture 05		Embryogenesis (somatic and zygotic).
Lecture 06		Protoplast isolation, culture and fusion.
Lecture 07		Tissue culture applications (micropropagation, androgenesis, virus elimination).
Lecture 08		Secondary metabolite production.
Lecture 09		Haploids, triploids and hybrids.
Lecture 10		Cryopreservation; Germplasm Conservation).
Lecture 11	Unit- 2: Recombinant DNA technology	Restriction Endonucleases - History, Types I-IV.
Lecture 12		Restriction Endonucleases biological role and application.
Lecture 13		Restriction Mapping (Linear and Circular).
Lecture 14		Cloning Vectors - Prokaryotic pUC 18 and pUC19.
Lecture 15		- pBR322, Ti plasmid, BAC.
Lecture 16		Lambda phage.
Lecture 17		M13 phagemid.
Lecture 18		Cosmid, Shuttle vector.
Lecture 19		Eukaryotic Vectors (YAC).
Lecture 20	Unit- 3:Gene Cloning	Recombinant DNA.
Lecture 21		Bacterial Transformation and selection of recombinant clones.
Lecture 22		PCR-mediated gene cloning.



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Lecture 23		Gene Construct; construction of genomic and cDNA libraries.
Lecture 24		Screening DNA libraries to obtain gene of interest by genetic selection; complementation, colony hybridization.
Lecture 25		PCR.
Lecture 26		Revision
Lecture 27		Revision

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Name of the Department: **English**

Name of the Teacher: **Soma Debray**

Name and Distinctive Number of the Paper: **CC2 (C2T)**

Session: **2022-2023**

Semester: **1st**

Sl. No. of Lecture	Board Topic in University Syllabus	Topic to be Covered in the Lectures
Lecture 01	Background Reading: <i>Theatre and Elizabethan England</i>	Origins of Western Theatre
Lecture 02		Greek and Roman Theatrical scenes
Lecture 03		The Elizabethan Age
Lecture 04		The Elizabethan Age
Lecture 05		Theatre in the Elizabethan times
Lecture 06		Precursors of Shakespeare
Lecture 07		Shakespeare and his contemporaries
Lecture 08		Shakespearean dramatic canon and the poetry of Shakespeare
Lecture 09	William Shakespeare: <i>Macbeth</i>	Introduction to <i>Macbeth</i>
Lecture 10		Story of <i>Macbeth</i>
Lecture 11		Reading and Analysis of The Text 01
Lecture 12		Reading and Analysis of The Text 02
Lecture 13		Reading and Analysis of The Text 03
Lecture 14		Reading and Analysis of The Text 04
Lecture 15		Reading and Analysis of The Text 05
Lecture 17		Reading and Analysis of The Text 06
Lecture 18		Reading and Analysis of The Text 07
Lecture 19		Reading and Analysis of The Text 08
Lecture 20		Reading and Analysis of The Text 09
Lecture 21		Reading and Analysis of The Text 10
Lecture 22		Reading and Analysis of The Text 11



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Lecture 23		Reading and Analysis of The Text 12
Lecture 24		Reading and Analysis of The Text 13
Lecture 25		Reading and Analysis of The Text 14
Lecture 26		Reading and Analysis of The Text 15
Lecture 27		Shakespearean Tragedy
Lecture 28		Macbeth as a Tragic Hero
Lecture 29		Characters in <i>Macbeth</i>
Lecture 30		Characters in <i>Macbeth</i>
Lecture 31		Plot of <i>Macbeth</i>
Lecture 32		Role of Fate in <i>Macbeth</i>
Lecture 33		The Supernatural in <i>Macbeth</i>
Lecture 34		The opening Scene of <i>Macbeth</i>
Lecture 35		The Porter Scene and Humour in <i>Macbeth</i>
Lecture 36		Soliloquies in <i>Macbeth</i>
Lecture 37		Discussion of the Cinematic Adaptation and other Modern Adaptations & Translations
Lecture 38		Discussions of Short Questions
Lecture 39		Discussions of Short Questions
Lecture 40		Revision Class
Lecture 41		Revision Class
Lecture 42		Revision Class
Lecture 43	<i>Critical Terms</i>	Allegory, Ballad, Blank-Verse, Heroic Couplet, Bathos
Lecture 44		Comedy, Dramatic Monologue, Elegy, Image, Ode



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Lecture 45		Carpe-diem, Soliloquy, Symbol, Tragedy, Catharsis
Lecture 46		Hamartia, Three Unities, Anagnorisis, Antagonist, Chorus
Lecture 47		Denouement, Comic-relief, Aside, Anti-Hero, Catastrophe
Lecture 48		Revision
Lecture 49		Revision
Lecture 50		Revision

Lecture 44		Comedy, Dramatic Monologue, Elegy, Image, Ode
Lecture 45		Carpe-diem, Soliloquy, Symbol, Tragedy, Catharsis
Lecture 46		Hamartia, Three Unities, Anagnorisis, Antagonist, Chorus
Lecture 47		Denouement, Comic-relief, Aside, Anti-Hero, Catastrophe
Lecture 48		Revision
Lecture 49		Revision
Lecture 50		Revision



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Name of the Department: **English**

Name of the Teacher: **Soma Debray**

Name and Distinctive Number of the Paper: **CC5 (C5T)**

Session: **2022-2023**

Semester: **3rd**

Sl. No. of Lecture	Board Topic in University Syllabus	Topic to be Covered in the Lectures
Lecture 01	Background Reading: British Novel	19 th century England: Society and Politics
Lecture 02		19 th century philosophy
Lecture 03		Locke; Mill; Utilitarianism
Lecture 04		The rise of the novel
Lecture 05		The rise of the novel
Lecture 06		The rise of the novel
Lecture 07		The works of Dickens
Lecture 08		The story: <i>Hard Times</i>
Lecture 09	Charles Dickens: <i>Hard Times</i>	Analytical reading of the text
Lecture 10		Analytical reading of the text
Lecture 11		Analytical reading of the text
Lecture 12		Analytical reading of the text
Lecture 13		Analytical reading of the text
Lecture 14		Analytical reading of the text
Lecture 15		Analytical reading of the text
Lecture 17		Analytical reading of the text
Lecture 18		Analytical reading of the text
Lecture 19		Analytical reading of the text



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Lecture 20	Analytical reading of the text
Lecture 21	Analytical reading of the text
Lecture 22	Analytical reading of the text
Lecture 23	Analytical reading of the text
Lecture 24	Analytical reading of the text
Lecture 25	Analytical reading of the text
Lecture 26	Plot of <i>Hard Times</i>
Lecture 27	Major characters of <i>Hard Times</i>
Lecture 28	Minor characters of <i>Hard Times</i>
Lecture 29	Symbolism in <i>Hard Times</i>
Lecture 30	Class conflict in <i>Hard Times</i>
Lecture 31	Humour in <i>Hard Times</i>
Lecture 32	The title <i>Hard Times</i>
Lecture 33	<i>Hard Times</i> as a Dickensian novel
Lecture 34	Language of <i>Hard Times</i>
Lecture 35	Discussion of short questions
Lecture 36	Discussion of short questions
Lecture 37	Discussion of short questions
Lecture 38	Discussion of short questions
Lecture 39	Discussion of short questions
Lecture 40	Revision & practise
Lecture 41	Revision & practise
Lecture 42	Revision & practise
Lecture 43	Revision & practise



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Lecture 44		Revision & practise
Lecture 45		Revision & practise
Lecture 46		Revision & practise
Lecture 47		Revision & practise
Lecture 48		Revision & practise
Lecture 49		Revision & practise
Lecture 50		Revision & practise



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Name of the Department: **English**

Name of the Teacher: **Soma Debray**

Name and Distinctive Number of the Paper: **DSC1C (DSC1CT)**

Session: **2022-2023**

Semester: **3rd**

Sl. No. of Lecture	Board Topic in University Syllabus	Topic to be Covered in the Lectures
Lecture 01	Background Reading: <i>Women and Violence</i>	Women in India
Lecture 02		Violence faced by women down the ages
Lecture 03		Post-colonial women
Lecture 04		Dalit women in India
Lecture 05		Status of Minority women
Lecture 06		Women movements against women
Lecture 07		Women activists
Lecture 08		Marginalisation of women
Lecture 09	<i>Karukku</i>	Analytical reading of the text: <i>Karukku</i>
Lecture 10		Analytical reading of the text: <i>Karukku</i>
Lecture 11		Analytical reading of the text: <i>Karukku</i>
Lecture 12		Analytical reading of the text: <i>Karukku</i>
Lecture 13		Analytical reading of the text: <i>Karukku</i>
Lecture 14		Analytical reading of the text: <i>Karukku</i>
Lecture 15		Analytical reading of the text: <i>Karukku</i>
Lecture 17		Analytical reading of the text: <i>Karukku</i>
Lecture 18		Analytical reading of the text: <i>Karukku</i>
Lecture 19		Analytical reading of the text: <i>Karukku</i>



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Lecture 20		Analytical reading of the text: <i>Karukku</i>
Lecture 21		Analytical reading of the text: <i>Karukku</i>
Lecture 22		Analytical reading of the text: <i>Karukku</i>
Lecture 23		Analytical reading of the text: <i>Karukku</i>
Lecture 24		Analytical reading of the text: <i>Karukku</i>
Lecture 25		Analytical reading of the text: <i>Karukku</i>
	<i>Sultana's Dream</i>	
Lecture 26		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 27		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 28		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 29		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 30		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 31		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 32		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 33		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 34		Analytical reading of the text: <i>Sultana's Dream</i>
Lecture 35		Analytical reading of the text: <i>Sultana's Dream</i>



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Lecture 36	Discussion of short questions
Lecture 37	Discussion of short questions
Lecture 38	Discussion of short questions
Lecture 39	Discussion of short questions
Lecture 40	Revision & practise
Lecture 41	Revision & practise
Lecture 42	Revision & practise
Lecture 43	Revision & practise
Lecture 44	Revision & practise
Lecture 45	Revision & practise
Lecture 46	Revision & practise
Lecture 47	Revision & practise
Lecture 48	Revision & practise
Lecture 49	Revision & practise
Lecture 50	Revision & practise



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Name of the Department: **English**

Name of the Teacher: **Soma Debray**

Name and Distinctive Number of the Paper: **CC11 (C11T)**

Session: **2022-2023**

Semester: **5th**

Sl. No. of Lecture	Board Topic in University Syllabus	Topic to be Covered in the Lectures
Lecture 01	Background Reading: <i>Colonial / Post Colonial</i>	Western Colonisers: society/ culture/ tradition/ education
Lecture 02		De-colonising movements
Lecture 03		New literature in the making
Lecture 04		The politics of identity, race & gender
Lecture 05		Africa: a new world vis-à-vis the old
Lecture 06		Writing from New Africa
Lecture 07		Chinua Achebe and the beginnings
Lecture 08		Chinua Achebe: <i>Things Fall Apart</i>
Lecture 09	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 10	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 11	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 12	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 13	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 14	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 15	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 16	Analytical reading of the text <i>Things Fall Apart</i>	
Lecture 17	Analytical reading of the text <i>Things Fall Apart</i>	



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Narajole Raj College
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Lecture 18		Analytical reading of the text <i>Things Fall Apart</i>
Lecture 19		Analytical reading of the text <i>Things Fall Apart</i>
Lecture 20		Analytical reading of the text <i>Things Fall Apart</i>
Lecture 21		Analytical reading of the text <i>Things Fall Apart</i>
Lecture 22		Analytical reading of the text <i>Things Fall Apart</i>
Lecture 23		Analytical reading of the text <i>Things Fall Apart</i>
Lecture 24		Major characters in <i>Things Fall Apart</i>
Lecture 25		Minor characters in the novel
Lecture 26		Storytelling in Achebe
Lecture 27		Gender concerns in Achebe's novel
Lecture 28		Significance of the title
Lecture 29		Concept of time in <i>Things Fall Apart</i>
Lecture 30		Discussions of Short questions
Lecture 31		Discussions of Short questions
Lecture 32		Revision
Lecture 33		Revision
Lecture 34		Tradition of short story in African literature
Lecture 35	Short Story: <i>The Collector of Treasures</i> by Bessie Head	Reading the story <i>The Collector of Treasures</i> analytically
Lecture 36		Reading the story <i>The Collector of Treasures</i> analytically
Lecture 37		Reading the story <i>The Collector of Treasures</i> analytically
		Reading the story <i>The Collector of Treasures</i> analytically



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Lecture 38		Reading the story <i>The Collector of Treasures</i> analytically
Lecture 39		Reading the story <i>The Collector of Treasures</i> analytically
Lecture 40		Plot of the story <i>The Collector of Treasures</i>
Lecture 41		Title of the story <i>The Collector of Treasures</i>
Lecture 42		Characters in the story <i>The Collector of Treasures</i>
Lecture 43		Discussion of short questions
Lecture 44		Revision
Lecture 45		Revision

Approved
Principal
Narajole Raj College
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30/04/24

Name of the Department: **English**



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Name of the Teacher: **Soma Debray**

Name and Distinctive Number of the Paper: **DSE1 (DSE1T)**

Session: **2022-2023**

Semester: **5th**

Sl. No. of Lecture	Board Topic in University Syllabus	Topic to be Covered in the Lectures
Lecture 01	Background Reading – <i>Developments in Russian Literature</i>	Russian society and history
Lecture 02		Literary movements and development of Russian novel
Lecture 03		The Detective novel and Psychoanalysis
Lecture 04	Fyodor Dostoevsky: <i>Crime and Punishment</i>	<i>Crime and Punishment</i> : story in brief
Lecture 05		Reading and Analysis of The Text
Lecture 06		Reading and Analysis of The Text
Lecture 07		Reading and Analysis of The Text
Lecture 08		Reading and Analysis of The Text
Lecture 09		Reading and Analysis of The Text
Lecture 10		Reading and Analysis of The Text
Lecture 11		Reading and Analysis of The Text
Lecture 12		Reading and Analysis of The Text
Lecture 13		Reading and Analysis of The Text
Lecture 14		Reading and Analysis of The Text
Lecture 15		Reading and Analysis of The Text
Lecture 16		Reading and Analysis of The Text
Lecture 17		Reading and Analysis of The Text
Lecture 18		Reading and Analysis of The Text
Lecture 19		Reading and Analysis of The Text



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Lecture 20	Reading and Analysis of The Text
Lecture 21	Reading and Analysis of The Text
Lecture 22	Technique of the detective
Lecture 23	The protagonist
Lecture 24	Major characters
Lecture 25	Minor characters
Lecture 26	Faith and redemption
Lecture 27	Morality
Lecture 28	Women in the novel
Lecture 30	Discussion of short questions
Lecture 31	Discussion of short questions
Lecture 32	Discussion of short questions



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