P.N. DAS COLLEGE

DEPARTMENT OF PHYSICS

ACADEMIC CALENDAR **2024-25**

CBCS + NEP SYSTEM

SEMESTER-I-(GENERAL)(PHSG)

UNDER NEP 2020

SESSION-AUG,2024-FEB,2025

PAPER	UNIT	TOPIC	NO OF LECTURES	NAME OF THE TEACHER
	I	VECTORS	10	Dr. SHARMILA DE
	II	PARTICLE DYNAMICS	14	
	III	GRAVITATION	07	PRODESH SARKAR
	IV	OSCILLATIONS	06	
	V	ELASTICITY	08	
	1.	TO DETERMINE MOMENT OF INERTIA OF A REGULAR BODY USING ANOTHER AUXILARY BODY AND A CRADLE SUSPENDED BY A METAL WIRE	04	Dr. SHARMILA DE
	2.	TO DETERMINE g AND VELOCITY OF FOR A FREELY BODY USING DIGITAL TIMING TECHNIQUE	05	

	3.	**TO DETERMINE YOUNG'S MODULUS BY FLEXURE METHOD**	**04**	**PRODESH SARKAR**
	4.	**TO DETERMINE THE MODULUS OF RIGIDITY OF A WIRE BY A TORSIONAL PENDULUM**	**05**	
	5.	**TO DETERMINE THE VALUE OF g USING BAR PENDULUM**	**04**	
	6.	**TO DETERMINE THE VALUE OF g USING KATER'S PENDULUM**	**04**	
	7.	**To determine the coefficient of Viscosity of water by capillary flow method.**	**04**	

SEMESTER-II-(GENERAL)(PHSG)

UNDER NEP 2020

SESSION-MAR-AUG,2024

PAPER	UNIT	TOPIC	NO OF LECTURES	NAME OF THE TEACHER
	I	VECTOR ANALYSIS	12	Dr. SHARMILA DE
	II	ELECTROSTATICS	18	
	III	MAGNETISM	10	
	IV	ELECTROMAGNETIC INDUCTION	06	PRODESH SARKAR
	V	LINEAR NETWORK	05	
	VI	MAXWELL'S EQUATION AND ELECTROMAGNETIC WAVE PROPAGATION	09	
	1.	TO DETERMINE AN UNKNOWN LOW REGISTANCE USING CAREY FOSTER'S BRIDGE	03	Dr. SHARMILADE
	2.	TO VERIFY THEVENIN AND NORTON THEORMS	03	
	3.	TO VERIFY SUPERPOSITION AND MAXIMUM POWER	03	

		TRANSFER THEORM		
	4.	TO DETERMINE SELF INDUCTANCE OF A COIL BY ANDERSON'S BRIDGE	03	
	5.	TO STUDY RESPONSE CURVE OF A SERIES LCR CIRCUIT AND DETERMINE ITS (a) RESONANT FREEQUENCY (b) IMPEDANCE AT RESONANCE (c) QUALITY FACTOR AND (d) BAND WIDTH	03	
	6.	TO STUDY THE RESPONSE CURVE OF A PARALLEL LCR CIRCUIT AND DETERMINE ITS (a) ANTI-RESONANT FREQUENCY AND (b) QUALITY FACTOR	03	PRODESH SARKAR
	7.	TO STUDY THE CHARACTERISTICS OF A SERIES RC CIRCUIT	03	
	8.	TO DETERMINE UNKNOWN LOW REGISTANCE USING POTENTIOMETER	03	
	9.	TO DETERMINE THE REGISTANCE OF A GALVANOMETER USING THOMSON'S METHOD	03	
	10.	MEASUREMENT OF FIELD STRENGTH B AND ITS VARIATION IN A SOLENOID	03	

SEMESTER-III-(GENERAL)(PHSG)

UNDER NEP 2020

SEMESTER-IV-(GENERAL)(PHSG)

UNDER NEP 2020

SEMESTER-V-(GENERAL)(PHSG)

UNDER CBCS

SESSION-SEP,2024-FEB,2025

PAPER	UNIT	TOPIC	NO OF LECTURES	NAME OF THE TEACHER
PHSGDSE01T (Theory)	I	DIGITAL CIRCUITS	15	PRODESH SARKAR
	II	SEMICONDUCTOR DEVICES AND AMPLIFIERS	15	
	III	OPERATIONAL AMPLIFIERS	14	
	IV	INSTRUMENTATIONS	16	
PHSGDSE01P (Practical)	1.	TO MEASURE (a) VOLTAGE AND (b) FREQUENCY OF A PERIODIC WAVEFORM USING CRO	03	
	2.	TO VERIFY AND DESIGN AND, OR, NOT AND XOR GATES USING NAND GATES	03	
	3.	TO MINIMIZE A GIVEN LOGIC CIRCUIT	03	

	4.	HALF ADDER, FULL ADDER AND 4-BIT BINARY ADDER	03	PRODESH SARKAR
	5.		03	
	6.	ADDER-SUBSTRACTOR USING FULL ADDER I.C.	03	
	7.	TO DESIGN AN ASTABLE MULTIVIBRATOR OF GIVEN SPECIFICATIONS USING 555 TIMER	03	
	8.	TO DESIGN A MONOSTABLE MULTIVIBRATOR OF GIVEN SPECIFICATIONS USING 555 TIMER	03	
	9.	TO VERIFY IV CHARACTARISTICS OF PN DIODE, ZENER AND LIGHT EMITTIG DIODE	03	
	10.	TO STUDY THE CHARACTARISTICS OF A TRANSISTOR IN CE CONFIGARATION	03	
		TO DESIGN A CE AMPLIFIER OF GIVEN GAIN USING VOLTAGE DIVIDER BIAS		

SEMESTER-VI-(GENERAL)(PHSG)

UNDER CBCS

SESSION-MAR-JULY,2025

PAPER	UNIT	TOPIC	NO OF LECTURES	NAME OF THE TEACHER
PHSGDSE04T (Theory)	I	GENERAL PROPERTIES OF NUCLEI	09	PRODESH SARKAR
	II	NUCLEAR MODELS	11	
	III	RADIOACTIVE DECAY	10	
	IV	NUCLEAR REACTION	08	
	V	INTERRACTION OF NUCLEAR RADIATION WITH MATTER	08	
	VI	DETECTOR FOR NUCLEAR RADIATION	07	
	VII	PARTICLE PHYSICS	14	