RPS Degree College, Balana (Mahendergarh)

Class and Section:B.Sc(H.P.) 2nd semester

Subject: Mathematics 2

Name of the Faculty :Mr. Manjeet

Week	Lecture	Date	Topics
1	7	16/01/20 to 24/01/20	Basics of the functions ,Fu nction of real variable
2	5	27/01/20 to 31/01/20	Continuity and Differentiability of functions
3	5	03/02/20 to 07/02/20	Uniform continuity of functions on open interval (a,b)
4	5	10/02/20 to 14/02/20	Problems related to uniform continuity
5	5	17/02/20 to 21/02/20	Intermidiate value theorem and related problem
6			1st Class Test
7	5	24/02/20 to 28/02/20	Taylor's theorem and related problem,Maclaurins theorem and it's application and problems
8	5	02/03/20 to 06/03/20	Functions of two and three variable and related problem
9	5	09/03/20 to 13/03/20	Continuity and Differentiability in two or three variable, Schwarz's theorem
10			2nd Class Test
11	5	16/03/20 to 20/03/20	Younges theorem and Implicit function
12	5	23/03/20 to 27/03/20	Riemann integral as limit of sum , Riemann integrability of continuous functions
13	5	06/04/20 to 10/04/20	The Fundamental theorem of integral calculus
14	5	30/03/20 to 03/04/20	Mean value theorem, Integration of rational functions and by partial fractions
15	5	13/04/20 to 17/04/20	Integration by Reduction formula
16			Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: Hons. Physics - 2nd semester

Subject: Basic Computer Education

Name of the Faculty : Ms. Meenakshi

Week	Lecture	Date	Topics
1	1	16-Jan-20	Computer Definition, characterstics, Applications, Components of computer system, Input/Output Devices
2	1	23-Jan-20	Revision
3	1	30-Jan-20	Concept of memory, magnetic and optical storage devices.
4	1	06-Feb-20	Definition & functions of Windows operating system , Basic Components of windows, exploring computer , icons.
5	1	13-Feb-20	Taskbar, desktop, managing files and folders, Control panel- display properties (Assignment given)
6	**1**		**Class Test 1**
7	1	27-Feb-20	Add/remove software and hardware , setting date and time , screen saver and appearance
8	1	05-Mar-20	Introduction to word processing , menus, creating , editing and formatting document
9	1	12-Mar-20	spell checking, printing, views, tables, wordart, mail merge, macros
10	1	19-Mar-20	Computer communication internet and its application, surfing the internet using webbrowser
11	**1**		**Class Test2**
12	1	09-Apr-20	Creating email id, viewing an email, sending an e-mail to a single and multiple users, sending a file as an attachment
13	1	16-Apr-20	Revision
14	1	23-Apr-20	Revision
15			Final Sessional Test
16			

Lesson plan

Name of the Assistant Professor: Uttam Nain

Class and Section: B.Sc Honors Physics 2nd sem

Subject: Mathematical Physics-II **Sub. Code- Phy-201**

Week	Day No.	Topics	Remarks
1	Day 1	**Introduction to course**	
	Day 2	Classification of differential equations	
	Day 3	linear and nonlinear	
	Day 4	homogeneous non-homogenous equations	
2	Day 5	**Linear ordinary Differential Equations**	
	Day 6	First order: Separable	
	Day 7	---continue---	
	Day 8	Exact equations.	
3	Day 9	--continue--	
	Day 10	--continue--	
	Day 11	Integrating factor.	
	Day 12	--continue--	
4	Day 13	--continue--	
	Day 14	Linear ODEs	
	Day 15	--continue--	
	Day 16	--continue--	
5	Day 17	Second Order: Homogeneous equations with constant coefficient's.	
	Day 18	--continue--	
	Day 19	--continue--	
	Day 20	--continue--	
6	Day 21	Wronskian and general solution	
	Day 22	**Class Test I**	
	Day 23	Statement of Existence and Uniqueness theorem for initial value problems	
	Day 24	Solution of non-homogeneous equations by operator (D) method	
7	Day 25	--continue--	
	Day 26	Particular Integral.	
	Day 27	--continue--	

	Day 28	Method of undetermined coefficients	
8	Day 29	--continue--	
	Day 30	variation of parameters	
	Day 31	Equations	
	Day 32	Reducible to those with constant coefficient.	
9	Day 33	Fourier series,	
	Day 34	Dirichlet conditions (Statement only)	
	Day 35	Orthogonality of sine and Cosine functions.	
	Day 36	Sine and cosine series	
10	Day 37	Distinctive features of Fourier expansions	
	Day 38	Half-range expansions	
	Day 39	Class Test II	
	Day 40	Applications Square wave triangular wave, output of full wave rectifier	
11	Day 41	Systematic and random errors	
	Day 42	Propagation of errors	
	Day 43	Standard and probable Error.	
	Day 44	Least square fitting of data (linear case).	

Lesson plan

Name of the Assistant Professor: Sandeep Singh

Class and Section: B.Sc Honors Physics 2nd sem

Subject: Mechanics-II **Sub. Code- Phy-202**

Week	Date	Day	Topic
01	20/01/2020	Monday	**UNIT-1: Gravitation and Central Force Motion** Law of gravitation. Inertial and gravitational mass.
	21/01/2020	Tuesday	Continue
	22/01/2020	Wednesday	Continue
	23/01/2020	Thursday	Potential energy and field due to spherical shell and solid sphere.
	24/01/2020	Friday	Continue
	25/01/2020	**Saturday**	**Working**
	26/01/2020	**Sunday**	
02	27/01/2020	Monday	Continue
	28/01/2020	Tuesday	Continue
	29/01/2020	Wednesday	Problems
	30/01/2020	Thursday	Continue
	31/01/2020	Friday	Continue
	01/02/2020	**Saturday**	**Vacant**
	02/02/2020	**Sunday**	
03	03/02/2020	Monday	Self-Energy of a body.
	04/02/2020	Tuesday	Continue
	05/02/2020	Wednesday	Central force.
	06/02/2020	Thursday	Continue
	07/02/2020	Friday	Conservation of angular momentum of a system moving under central force.
	08/02/2020	**Saturday**	**Working**
	09/02/2020	**Sunday**	
04	10/02/2020	Monday	Reduction of a two body problem into one body problem.
	11/02/2020	Tuesday	Continue
	12/02/2020	Wednesday	Continue
	13/02/2020	Thursday	Problems
	14/02/2020	Friday	Continue
	15/02/2020	**Saturday**	**Vacant/Alumni Meet**
	16/02/2020	**Sunday**	
05	**17/02/2020**	**Monday**	**First Class Test**
	18/02/2020	Tuesday	Drawing trajectory from the potential energy diagram.
	19/02/2020	Thursday	Continue
	20/02/2020	Wednesday	Continue
	21/02/2020	**Friday**	**Maha Shivratri**
	22/02/2020	**Saturday**	**Working**
	23/02/2020	**Sunday**	

Week	Date	Day	Topic
06	24/02/2020	Monday	Kepler's laws of planetary motion.
	25/02/2020	Tuesday	Continue
	26/02/2020	**Wednesday**	**First Assignment**
	27/02/2020	**Thursday**	**Annual Sport Meet**
	28/02/2020	**Friday**	**Annual Sport Meet/ First PTM**
	29/02/2020	**Saturday**	**Vacant**
	01/03/2020	**Sunday**	
07	02/03/2020	Monday	**UNIT-2: Non- Inertial Systems** Inertial frame and Non-Inertial frame of references.
	03/03/2020	Tuesday	Continue
	04/03/2020	Wednesday	Continue
	05/03/2020	Thursday	Galilean and Lorentz transformations.
	06/03/2020	Friday	Continue
	07/03/2020	**Saturday**	**Vacant**
	08/03/2020	**Sunday**	
08	09/03/2020	Monday	Fictitious forces: Pseudo, Centrifugal and Coriolis force.
	10/03/2020	**Tuesday**	**Holi/Dhulandi**
	11/03/2020	Wednesday	Continue
	12/03/2020	Thursday	Continue
	13/03/2020	Friday	Continue
	14/03/2020	**Saturday**	**Working**
	15/03/2020	**Sunday**	
09	16/03/2020	Monday	**Special Theory of Relativity:** Michelson-Morley experiment and its outcomes.
	17/03/2020	Tuesday	Continue
	18/03/2020	Wednesday	Continue
	19/03/2020	Thursday	Postulates of special theory of relativity and Lorentz transformations.
	20/03/2020	Friday	Continue
	21/03/2020	**Saturday**	**Vacant**
	22/03/2020	**Sunday**	

Week	Date	Day	Topic
10	**23/03/2020**	**Monday**	**Second Class Test**
	24/03/2020	Tuesday	Simultaneity and order of events.
	25/03/2020	Wednesday	Continue
	26/03/2020	Thursday	Length contraction and time dilation.
	27/03/2020	**Friday**	**Second Assignment**
	28/03/2020	**Saturday**	**Working**
	29/03/2020	**Sunday**	
11	30/03/2020	Monday	Continue
	31/03/2020	Tuesday	Relativistic transformation of velocity, frequency and wavenumber.
	01/04/2020	Wednesday	Continue
	02/04/2020	**Thursday**	**Ram Navmi**
	03/04/2020	**Friday**	**Second PTM**
	04/04/2020	**Saturday**	**Vacant**
	05/04/2020	**Sunday**	
12	06/04/2020	Monday	Velocity dependence of mass and equivalence of mass and energy.
	07/04/2020	Tuesday	Continue
	08/04/2020	Wednesday	Problems
	09/04/2020	Thursday	Continue
	10/04/2020	Friday	Continue
	11/04/2020	**Saturday**	**Working**
	12/04/2020	**Sunday**	
13	13/04/2020	Monday	Relativistic Doppler effect.
	14/04/2020	Tuesday	Continue
	15/04/2020	Wednesday	Relativistic Kinematics.
	16/04/2020	Thursday	Continue
	17/04/2020	Friday	Problems
	18/04/2020	**Saturday**	**Vacant**
	19/04/2020	**Sunday**	
14	20/04/2020	Monday	Transformation of energy and momentum.
	21/04/2020	Tuesday	Continue
	22/04/2020	Wednesday	Problems
	23/04/2020	Thursday	Continue
	24/04/2020	**Friday**	**Final Sessional**
	25/04/2020	**Saturday**	**Working**
	26/04/2020	**Sunday**	

Lesson plan

Name of the Assistant/ Associate Professor: **PRAVEEN KUMAR**

Class and Section: **HP 2nd**

Subject: **Electricity** **Subject code- Phy-203**

Week	Day No.	Topics	Remarks
1	Day 1	Basic introduction of magnetostatics	
16Jan. - 20Jan.	Day 2	Magnetic force	
	Day 3	Magnetic force between current elements	
	Day 4	Definition of B	
	Day 5	. Properties of B&ampere circuital law	
2 21 Jan. - 25 Jan.	Day 6	Applications of Ampere circuital law	
	Day 7	Curl and divergence of B	
	Day 8	Vector potential. Magnetic flux	
	Day 9	Calculation of B for circular and solenoid currents.	
3 27Jan. - 31Jan.	Day 10	Torque on a current loop in a uniform magnetic field	
	Day 11	Magnetic dipole	
	Day 12	Forces on an isolated moving charge.	
	Day 13	Magnetic Properties of Matter:Basic introduction	
	Day 14	B, H and their relation	
4 03 Feb. - 7 Feb.	Day 15	. Magnetic susceptibility	
	Day 16	Physical significance of these physical parameters	
	Day 17	Stored magnetic energy in matter	
	Day 18	Magnetic circuit B-H curve	
	Day 19	Energy loss in hysteresis.	
5 10 Feb. - 14 Feb.	Day 20	Topic wiserevision of concepts and discussion	
	Day 21	Same as in previous class	
	Day 22	Class test	
	Day 23	Test distribution	
	Day 24	Discussion	
6 17 Feb. - 21 Feb.	Day 25	Basic introduction of second unit	
	Day 26	Electromagnetic Induction	
	Day 27	Concept formulation for time depending nature of electric and magnetic field	
	Day 28	A conducting rod and basic of uniform and non uniform magnetic field	
	Day 29	A conducting rod moving through a uniform magnetic field	
7 24 Feb. - 28Feb.	Day 30	. A loop through on- uniform magnetic field..	
	Day 31	Basic difference between open and close surface	
	Day 32	A stationary loop with field source moving	
	Day 33	Faraday's law of induction	
	Day 34	Revision of completed portion	
8 02Mar.	Day 35	Discussion of concept	
	Day 36	Class test	

-			
06Mar.	Day 37	Test distribution	
	Day 38	Test discussion	
	Day 39	Basics of Maxwell equations	
9	Day 40	Their physical interpretation	
09Mar.	Day 41	Curl E=dB/dt	
-	Day 42	Mutual induction	
13Mar.	Day 43	Reciprocity theorem (M12 = M21)	
	Day 44	Self-induction	
10	Day 45	Energy stored in magnetic field.	
16Mar.	Day 46	Revision of concepts	
-	Day 47	Class discussion	
20Mar.	Day 48	Class test	
	Day 49	Test distribution	
11	Day 50	Test discussion	
23Mar.	Day 51	Revision of topics viz. given below	
-	Day 52	Ampere's Circuital Law	
27Mar.	Day 53	Its applications	
	Day 54	Torque on a current loop in a uniform magnetic field	
12	Day 55	Magnetic dipole	
30Mar.	Day 56	Forces on an isolated moving charge.	
-	Day 57	Numerical analysis of complete unit	
03 Apr.	Day 58	Same as above	
	Day 59	Same as above	
13	Day 60	Magnetic circuit B-H curve	
06Apr.	Day 61	Energy loss in hysteresis.	
-	Day 62	Faraday's law of induction	
10Apr.	Day 63	A conducting rod moving through a uniform magnetic field	
	Day 64	Mutual induction	
14	Day 65	Energy stored in magnetic field.	
13 Apr.	Day 66	Energy stored in magnetic field	
-	Day 67	Problem regarding syllabus	
17 Apr.	Day 68	Problem regarding syllabus	
	Day 69	Revision	
15	Day 70	Revision	
20 Apr.	Day 71	Sessional examination	
24 Apr.	Day 75	Result Analysis	

Lesson plan

Name of the Assistant/ Associate Professor: **Mr. Manjeet Kumar**

Class:**HP2**

Subject:**LDIC-II** **Subject Code- Phy-206**

Week	Day No.	Topics	Remarks
1	Day 1	Introduction About Syllabus	
	Day 2	Sequential Circuit: Flip-Flop	
	Day 3	Types of Flip-Flop	
2	Day 4	SR Flip-Flop	
	Day 5	Clocked SR flip-Flop	
	Day 6	Pre-set and Clear SR Flip-Flop	
3	Day 7	JK Flip-Flop	
	Day 8	Clocked JK Flip-Flop	
	Day 9	pre-set and Clear JK Flip-Flop	
4	Day 10	Race around condition in JK Flip Flop	
	Day 11	Master Slave JK Flip Flop	
	Day 12	Continue……	
5	Day 13	D flip Flop	
	Day 14	T Flip Flop	
	Day 15	Revision of Flip Flop	
6	Day 16	Introduction about Registers	
	Day 17	Types of Registers	
	Day 18	SISO Register	
7	Day 19	SIPO Register	
	Day 20	PIPO Register	
	Day 21	PISO Register	
8	Day 22	Revision of Registers	
	Day 23	Class Test	
	Day 24	Introduction About Counters: Asynchronous Counter	
9	Day 25	Synchronous Counter	
	Day 26	Decade Counter	
	Day 27	Revision of Counters	
10	Day 28	Introduction about Conversion: Types of Conversion: D/A & A/D	

	Day 29	Types of Dto A Converter	
	Day 30	Continue……	
11	Day 31	Continue…...	
	Day 32	Continue…...	
	Day 33	Types of A to D Converter	
12	Day 34	A/D Converter Continue…...	
	Day 35	Continue.....	
	Day 36	Revision of Converters	
13	Day 37	Introduction About Power Supply: Requirement of Ideal Voltage and Current Source, Voltage Source	
	Day 38	Introduction About Rectifiers & Types of Rectifiers: Half-Wave Rectifiers	
	Day 39	Full-Wave Rectifier & Bridge Rectifier.	
14	Day 40	Revision About Rectifiers	
	Day 41	Introduction About Filters: L Filter & C filters.	
	Day 42	Some Idea of Ripple. Revision About Filters.	
15	Day 43	Class Test	
	Day 44	Oscilloscope: Input attenuators, DC, AC and ground, horizontal and vertical deflecting system.	
	Day 45	Time base generation and synchronization: measurement of positive, positive-negative wave shape, rise time and fall time.	
16	Day 46	Frequency, amplitude and phase of sinusoidal waves.	
	Day 47	Revision of Oscilloscope	
	Day 48	Introduction About IC 555	
17	Day 49	Continue……	
	Day 50	Continue……	
	Day 51	Continue……	
18	Day 52	Continue……	
	Day 53	Continue……	
	Day 54	Doubts From Units	
19	Day 55	Revision of Syllabus	
	Day 56	Revision of Syllabus	