Pakistan School System- Oman

Syllabus / SLOs Coverage plan (2022-23)

Grade:	**XII**			**Subject:**	**Physics**		
Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		August - 2022.					
1	2	10 to 11	Electrostatics	.August-7	Ashoora -Holiday		
				.August-8		2%	
				.August-9			
				.August-10	Orientation		
				.August-11	Coulomb's law, electric field, examples related to electric field intensity		
Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		August - 2022.					
2	4	14 to 18	Electrostatics	.August-14	Independence day - Holiday		
				.August-15	Electrostatics and its applications, electric flux	6%	
				.August-16	Gauss's law and its applications, electric potential		
				.August-17	Field and potential gradient, electron volt		
				.August-18	Capacitor and combination of capacitors		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		August - 2022.					
3	5	21 to 25	Electrostatics	.August-21	Electric polarisation, examples	10%	
				.August-22	Energy storage by a capacitor		
				.August-23	Charging and discharging of a capacitor		
				.August-24	Exercises		
				.August-25	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Aug/ Sep - 2022.					
4	5	28 to 1	Current electricity	.August-28	Steady current, drift velocity, Ohm's law	14%	
				.August-29	Resistance, specific resistance, conductance		
				.August-30	Wire wound variable resistors, potential dividers, thermistor		
				.August-31	Electromotive force, , sources of emf, internal resistance		
				.Sept:1	Electric power, thermocouples, resistance thermometers		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Sept: - 2022.					
5	5	4 to 8	Current electricity	.Sept:-4	Kirchoff's current and voltage laws	18%	
				.Sept:-5	Examples related to Kirchoff's laws		
				.Sept:-6	Wheatstone bridge and its working, potentiometer		
				.Sept:-7	Exercises		
				.Sept:-8	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Sept: - 2022.					
6	5	11 to 15	Electromagnetism	Sept:- 11	Magnetic field, magnetic flux	23%	
				Sept:- 12	Ampere's law, applications of magnetic field		
				Sept:- 13	Motion of a charged particle in a magnetic field		
				Sept:- 14	Determination of e/m for an electron		
				Sept:- 15	MRI, galvanometer and its conversion to voltmeter		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Sept: - 2022.					
7	5	18 to 22	Electromagnetism	.Sept: 18	Avometer, current measurement	27%	
				.Sept: 19	Voltage measurement, resistance measurement		
				.Sept: 20	Digital multimeters		
				.Sept: 21	Exercises		
				.Sept: 22	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Sept: - 2022.					
8	5	25 to 29	Electromagnetic induction	.Sept: 25	Faraday's law of electromagnetic induction and its application	35%	
				.Sept: 26	Lens's law, induced emf		
				.Sept: 27	Motional emf, self induced emf		
				.Sept: 28	Self inductance, factors affecting inductance		
				.Sept: 29	Mutually induced emf, mutual inductance		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		October-2022.					
9	5	2 to 6	Electromagnetic induction	.Oct: - 2	Generating electricity, alternating current generator	40%	
				.Oct: - 3	A.C. Motor, back emf, transformer		
				.Oct: - 4	Induction law, energy losses in a transformer		
				.Oct: - 5	Exercises		
				.Oct: - 6	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		October-2022.					
10	5	9 to 13	Alternating current	.Oct: - 9	Alternating voltage and current, Sinusoidal alternating voltage and current	45%	
				.Oct: - 10	A.C. terminologies, Values of alternating voltage and current		
				.Oct: - 11	Peak value, average value		
				.Oct: - 12	R.M.S. or effective value, R.M.S. value of sinusoidal current		
				.Oct: - 13	Phase of A.C., Alternating quantities representation		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		October-2022.					
11	5	16 to 20	Alternating current	.Oct: - 16	Instantaneous power, A.C. through resistance	50%	
				.Oct: - 17	Power loss in a resistor, A.C. through pure inductance		
				.Oct: - 18	Power loss in an inductor, choke coil		
				.Oct: - 19	A.C. through capacitance, power loss in a capacitive circuit		
				.Oct: - 20	R.L. series A.C. circuit, power in RL circuit		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		October-2022.					
12	5	23 to 27	Alternating current	.Oct: - 23	RL series impedance triangle, R.C. series A.C. circuit, power in R.C. circuit	55%	
				.Oct: - 24	RLC series A.C. circuit, Resonance in A.C. circuits, principle of metal detectors		
				.Oct: - 25	Maximum power transfer, Maxwell's equations, Electromagnetic waves		
				.Oct: - 26	Exercises		
				.Oct: - 27	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Oct/ Nov- 2022.					
13	5	30 to 3	Physics of solids	.Oct:- 30	Classification of solids	60%	
				.Oct:- 31	Crystal structure, elastic moduli		
				.Nov:- 1	Hooke's law, mechanical properties of solids		
				.Nov:- 2	Energy band theory, Semiconductors		
				.Nov:- 3	Theory of magnetism, classification of magnetic materials		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Nov:- 2022.					
14	5	6 to 10	Physics of solids	.Nov- 6	Magnetic hysteresis, Retentivity	65%	
				.Nov- 7	Magnetic hysteresis loops for soft and hard materials		
				.Nov- 8	Soft and hard magnetic materials		
				.Nov- 9	Exercises		
				.Nov- 10	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Nov:- 2022.					
15	5	13 to 17	Electronics	.Nov: -13	Semiconductors, N and P type semiconductors	68%	
				.Nov: -14	PN junction, rectification		
				.Nov: -15	Transistor		
				.Nov: -16	Types of configurations		
				.Nov: -17	Transistor as an amplifier		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Nov:- 2022.					
16	5	20 to 24	Electronics	.Nov:- 20	Transistor as a switch	70%	
				.Nov:- 21	Digital electronics		
				.Nov:- 22	Photodiode, light emitting diode, solar cell		
				.Nov:- 23	Exercises		
				.Nov:- 24	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#	Nov / Dec:- 2022.						
17	Nil	27 to 1		.Nov:- 27	Oman National Day- Holidays		
				.Nov:- 28			
Sendup Examination - From November 29, 2022 to December 15, 2022							

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Dec: - 2022.					
18	5	18 to 22	Modern Physics	.Dec: -18	Special theory of relativity	72%	
				.Dec: -19	Consequences of special theory of relativity		
				.Dec: -20	Equivalence between mass and energy		
				.Dec: -21	Time and mass dilation		
				.Dec: -22	Black body radiation, Plank's quantum theory		
Winter Vacation from December 22 to January 5, 2023							

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		January- 2023.					
19	5	8 to 12	Modern Physics	.Jan:- 8	Photoelectric effect	75%	
				.Jan:- 9	Applications of photoelectric effect		
				.Jan:- 10	Compton's effect, pair production		
				.Jan:- 11	Wave nature of particles		
				.Jan:- 12	Davison and Germer experiment		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		January- 2023.					
20	5	15 to 19	Modern Physics	.Jan:- 15	Wave particle duality	80%	
				.Jan:- 16	Electron microscope		
				.Jan:- 17	Uncertainty principle		
				.Jan:- 18	Exercises		
				.Jan:- 19	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		January- 2023.					
21	5	15 to 19	Atomic spectra	.Jan:- 22	Spectrum of Hydrogen atom	85%	
				.Jan:- 23	Radii of the quantised orbit		
				.Jan:- 24	Hydrogen emission spectrum		
				.Jan:- 25	De- Broglie's waves and Hydrogen atom		
				.Jan:- 26	Excitation and ionization potential		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Jan/ Feb- 2023.					
22	5	29 to 02	Atomic spectra	.Jan:- 29	Production and properties of X-rays	90%	
				.Jan:- 30	Lasers, laser action		
				.Jan:- 31	Helium-Neon laser		
				.Feb:- 1	Exercises		
				.Feb:- 2	Exercises		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		February- 2023.					
23	5	5 to 9	Nuclear Physics	.Feb:- 5	Isotopes, mass spectrograph	95%	
				.Feb:- 6	Mass defect and binding energy		
				.Feb:- 7	Radioactivity		
				.Feb:- 8	Radioactive decay and half life		
				.Feb:- 9	Interaction of radiation with matter, radiation detectors		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		February- 2023.					
24	5	12 to 16	Nuclear Physics	.Feb:- 12	Nuclear reactions, nuclear reactor	100%	
				.Feb:- 13	Biological effects of radiation,		
				.Feb:- 14	Forces in nature, classification of particles		
				.Feb:- 15	Exercises		
				.Feb:- 16	Exercises		
Completion of Syllabus till February 16, 2023							

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		February- 2023.					
25	3	19 to 23		.Feb:- 19	Revision		
				.Feb:- 20	Revision		
				.Feb:- 21	Revision		
				.Feb:- 22	Revision		
				.Feb:- 23	Revision		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		Feb/ Mar: - 2023.					
26	5	26 to 2		.Feb:- 26	Revision		
				.Feb:- 27	Revision		
				.Feb:- 28	Revision		
				.March:- 1	Revision		
				.March:- 2	Revision		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		March: - 2023.					
27	5	5 to 9		.March: - 5	Revision / Test Series		
				.March: - 6	Revision / Test Series		
				.March: - 7	Revision / Test Series		
				.March: - 8	Revision / Test Series		
				.March: - 9	Revision / Test Series		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		March: - 2023.					
28	5	12 to 16		.March: - 12	Revision / Test Series		
				.March: - 13	Revision / Test Series		
				.March: - 14	Revision / Test Series		
				.March: - 15	Revision / Test Series		
				.March: - 16	Revision / Test Series		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		March: - 2023.					
29	4	19 to 23		.March: - 19	Revision / Test Series		
				.March: - 20	Revision / Test Series		
				.March: - 21	Revision / Test Series		
				.March: - 22	Revision / Test Series		
				.March: - 23	Pakistan Day- Holiday		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		March: - 2023.					
30	5	26 to 30		.March: - 26	Revision / Test Series		
				.March: - 27	Revision / Test Series		
				.March: - 28	Revision / Test Series		
				.March: - 29	Revision / Test Series		
				.March: - 30	Revision / Test Series		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		April- 2023.					
31	5	2 to 6		.April:- 2	Revision / Test Series		
				.April:- 3	Revision / Test Series		
				.April:- 4	Revision / Test Series		
				.April:- 5	Revision / Test Series		
				.April:- 6	Revision / Test Series		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		April- 2023.					
32	5	9 to 13		.April:- 9	Revision / Test Series		
				.April:- 10	Revision / Test Series		
				.April:- 11	Revision / Test Series		
				.April:- 12	Revision / Test Series		
				.April:- 13	Revision / Test Series		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		April- 2023.					
33	5	16 to 20		.April:- 16	Revision / Test Series		
				.April:- 17	Revision / Test Series		
				.April:- 18	Revision / Test Series		
				.April:- 19	Revision / Test Series		
				.April:- 20	Revision / Test Series		

Week	# of Working days	From--T0	Chapter	Date	Topics	%	Review
#		April- 2023.					
34	5	23 to 27		.April:- 23	Revision / Test Series		
				.April:- 24	Revision / Test Series		
				.April:- 25	Revision / Test Series		
				.April:- 26	Revision / Test Series		
				.April:- 27	Revision / Test Series		
Pre- Board- XI- XII, May- 2023							