Physics ICS Part 2 Chapter 20 Online MCQ's Test

Sr	Questions	Answers Choice
1	The first theory about the structure of an atom was introduced by	A. Neil Bohr B. Einstein C. Compton D. Rutherford
2	Study of hydrogen visible spectrum in	A. 1886 B. 1887 C. 1895 D. 1885
3	The value of Rydberg constant is	A. 1.0974 x 10⁷ m⁻¹ B. 1.0974 x 10⁻⁷ m⁻¹ C. 1.0974 x 10⁶ m⁻¹ D. 1.0974 x 10⁻⁶ m⁻¹
4	Which of the following is one of the spectral series of atomic hydrogen?	A. Brockett series B. Balmer series C. P fund series D. All of above
5	If the ionization energy of hydrogen atom is 13.6 eV, its ionization potential will be	A. 136.0 volt B. 3.0 volt C. 13.6 volt D. None of these
6	The 1st Bohr atom in the hydrogen atom has radius	A. 3.56 x 10⁻¹⁰ m B. 0.053 x 10⁻¹¹ m C. 0.53 x 10⁻¹¹ m D. 5.30 x 10⁻¹¹ m
7	X-rays were discovered by	A. Curie B. Henry Becquerel C. Rontgen D. None of these
8	The X-rays diffraction with crystal was first studied by	A. W.H Bragg B. W.L. Bragg C. Michelson D. None of these
9	An atom can reside in excited state for	A. 10⁻⁸ second B. One second C. 10⁻¹⁰ second D. More than one second
10	The process by which lesser beam can be used to generate 3-dimensional images of objects is called	A. Holography B. Geo graphy C. Tomography D. Radio graphy
11	Reflecting mirrors in laser is used to	A. Further stimulation B. For producing more energetic lasers C. Both (a) and (b) D. None of these
12	Life time of metastable states is	A. 10⁻⁶ sec or more B. 10⁻³ sec or more C. 10⁻⁵ sec or more D. None of these
13	Helium-Neon laser discharge tube contains neon	A. 82% B. 15% C. 25% D. 85%
14	The idea of laser device was first introduced by C.H. Towners and Authers Schowlan is	A. 1972 B. 1965 C. 1958 D. 1913

15	Black Body radiation spectrum is an example of:	A. Atomic spectra B. Line spectra C. Continuous spectra D. None of above
16	The first spectral lines were discovered in 1885, were	A. Paschen series B. Balmer series C. Pfund series D. Bracket series
17	The value of Rydberg constant is:	A. 1.0749x10⁷m⁻¹ B. 1.0974 x 10⁷ m⁻¹ C. 1.974 x10⁶m⁻¹ D. 1.0974 x 10⁻⁷ m⁻¹
18	The series in visible region is:	A. Balmer series B. Pfund series C. Paschen series D. None of above
19	The series in infrared region is:	A. Paschen series B. Bracket series C. Pfund series D. All of above
20	The radius of hydrogen atom is:	A. 0.53A° B. 0.053A° C. 0.53 x 10⁻⁹ D. 0.053 x10⁻⁹
21	The velocity of electron moving is 1st orbit of hydrogen atom is:	A. 2.09 x 10⁶ ms⁻¹ B. 2.18 x10⁶ ms⁻¹ C. 2.19 x 10⁶ ms⁻¹ D. 3.18 x10⁶ ms⁻¹
22	The typical nuclei are less than:	A. 10⁻¹⁶m B. 10⁻¹⁴m C. 10⁻¹²m D. 10⁻¹⁰m
23	The temperature of core of nuclear reactor is:	A. 1100°C B. 1200°C C. 1300°C D. 1400°C
24	Energy produced due to fission of uranium atom is:	A. 500MeV B. 200MeV C. 700MeV D. 750MEV
25	A° is the unit of:	A. Energy B. Length C. Nuclear energy D. Work
26	Charge on positron is:	A. Negative B. Positive C. Netural D. None of these
27	Electron volt is unit of:	A. Chemical energy B. Potential energy C. Nuclear energy D. heat energy
28	Charge on an atom is:	A. Positive B. Negative C. Neutral D. None of these
29	Boher proposed his atomic model in:	A. 1910 B. 1911 C. 1912 D. 1913
30	1 rad =	A. 0.001Gy B. 0.01Gy C. 0.1Gy D. 1.01Gy

31	1 rem =	A. 0.001 SV B. 0.01 SV C. 0.1 SV D. 1.01 SV
32	If 13.6 eV energy is required to ionize the hydrogen atom, then the required energy to remove an electron from n=2 is:	A. 10.2 eV B. 0 eV C. 3.4 eV D. 6.8 eV
33	For an atom of hydrogen atom the radius of the first orbit is given by:	A. H/me² B. me/4h² C. h2/4π² kme² D. h² me²
34	The Balmer series is obtained when all the transition of electrons terminate on	A. 1st orbit B. 2nd orbit C. 3rd orbit D. 4th orbit
35	In according with Bohr's theory the K.E of the electron is equal to:	A. ke²/2r B. Ze²/r C. Ze²/r² D. Ze²/2r²
36	In the Bohr's model of the hydrogen atom, the lowest orbit corresponds to:	A. Infinite energy B. Maximum energy C. Minimum energy D. Zero energy
37	When an electron in an atom goes from a lower to higher orbit its:	A. K.E increases , P.E decreases B. K.E increases , P.E increases C. K.E decreases , P.E increases D. K.E decreases , P.E decreases
38	Frequency of x-rays depends upon.	A. Number of electrons striking target B. Accelerating potencial C. Nature of the target D. Both B and C
39	Target material used in x-rays tube have following properties.	A. High atomic number and high melting pouint B. High atomic number and low melting pouint C. Low atomic number and low melting pouint D. High atomic number only
40	Laser is a device which can produce:	A. Intense beam of light B. Coherant beam of light C. Monochromatic beam of light D. All of the above
41	Balmer series lies in region of electromagnetic spectrum.	A. Infrared B. Visible C. Ultraviolet D. Fra infrared
42	The shortest wave length is Bracket series has wave length.	A. 16/Rn B. Rn/16 C. 16 Rn D. 4 Rn
43	Balmer series lies in	A. Visible region B. Invisible region C. Ultraviolet region D. Infrared region
44	Which series lies in the ultraviolet region.	A. Balmer series B. Bracket series C. Ptund series D. Lyman series
45	For Paschen series, the value of 'n' starts from	A. 2 B. 4 C. 6 D. 8
46	Balmer Empirical formula explains the electromagnetic radiation of any excited atom in terms of their.	A. Energy B. Mass C. Wave length D. Momentum
47	The line radiations emitted from by hydrogen filled discharge tube can be analyzed into.	A. Band spectrum B. Line spectrum C. Continuous spectrum D. Absorption spectrum

		D. Absorption spectrum
48	First spectral series of hydrogen atom was discovered by	A. Lyman B. Rydberg C. Balmer D. Paschen
49	Which of the following series of hydrogen spectrum lies in ultra violet region.	A. Lyman sereis B. Paschen series C. Balmar series D. Bracket series
50	Hydrogen atom spectrum does not lie in	A. Ultraviolet region B. Visible region C. Infrared region D. X ray region
51	Paschen series lies in the	A. Far ultraviolet region B. Visible region C. Ultraviolet region D. Inferred region
52	The longest wavelength of Paschen series is.	A. 656 nm B. 1094 nm C. 1875 nm D. 2000 nm
53	The unit of Rh is.	A. ms-1 B. m C. m² D. m⁻¹
54	The radius of 10th orbit in hydrogen atom is.	A. 0.053 nm B. 0.53 nm C. 5.3 nm D. 53 nm
55	Earth orbital speed is	A. 10 km/s B. 20 km/s C. 30 km/s D. 40 km/s
56	The first orbit in the hydrogen atom has a radius.	A. 0.53 nm B. 0.053 nm C. 0.0053 nm D. 0.00053 nm
57	The energy of 4th Orbit in hydrogen atom is.	A. -2.51 eV B. -3.50 eV C. -13.60 eV D. -0.85 eV
58	Radius of first orbit of an atom is r1= 0.053 nm, Radius of second orbit r2 will be.	A. 0.106 nm B. 0.212 nm C. 0.053 nm D. 0.53 x 10^{-10} nm
59	If electron jumps from second orbit to first orbit in hydrogen atom it emits photon of.	A. 3.40 eV B. 10.20 eV C. 13.6 eV D. 3.8 eV
60	_____ has the largest de Broglie wavelength at same speed.	A. Proton B. Alpha particle C. Carbon atom D. Electron
61	We can find from de Broglie formula	A. Wavelength B. Amplitude C. Speed of wave D. Frequency of wave
62	The following gas was identified in the sun using spectroscopy	A. Hydrogen B. Helium C. Carbon D. Nitrogen
63	Radius of first Bohr's orbit is.	A. 0.053 nm B. 0.053 mm C. 0.053 micro meter D. 0.053 m
64	An electron in H -atom is excited from ground state n=4 , How many spectral lines are possible in this case.	A. 6 B. 5 C. 4 D. 3
	In an electronic transition atom cannot emit	A. Infrared radiations B. Visible radiations

65	In an electronic transition atom cannot emit:	B. Visible radiations C. Ultraviolet radiations D. Gama radiations
66	Photons emitted in inner shell transition are.	A. Continuous X-rays B. Discontinuous X rays C. Characteristic X rays D. Energetic X rays
67	Production of x rays is reverse process of	A. Photo electric effect B. Compton effect C. An nihilation D. Pair production
68	Which is not true for X rays	A. X rays are not defected by electric field B. X rays are polarized C. X rays consist of electromagnetic waves D. X rays can be diffracted by grating
69	The rest mass x ray photon is	A. Infinite B. Zero C. 1.67 X⁻¹⁷ kg D. All of the above
70	In Helium Neon laser, discharge tube is filled with Neon gas.	A. 10% B. 15% C. 85% D. 90%
71	Kx -Xrays are produced due to transition of electron from.	A. K to L shell B. L to K shell C. M to K shell D. M to L shell
72	X- ray diffraction reveals that these are	A. Particle type B. Wave type C. Both wave and particle D. None of above
73	Bremsstrahlung radiation are examples of	A. Atomic spectra B. Molecular spectra C. Continuous spectra D. Discrete spectra
74	When meta l is heated sufficiently electrons are given off by the metal. This phenomenon is known as.	A. Photoelectric effect B. Piezo electric effect C. Thermionic emission D. Secondary emission
75	Laser can be made by creating.	A. Meta stable B. Population inversion C. Excited state D. All of these
76	Helium Neon Laser Beam emitted from discharge tube has a colour.	A. Blue B. Green C. Red D. Black
77	Laser is a beam of light which is	A. Monochromatic B. Coherent C. Unidirectional D. All of these
78	In Helium Neon laser, the discharge tube is filled with	A. 80% He, 20% Neon B. 85% He, 15% Neon C. 83% He, 17% Neon D. 90% He, 10% Neon
79	The first laser was built by	A. ArthursSchawalow B. T.H.Maiman C. Peter Sorokin D. C.H.Townes
80	Which is not characteristic of Laser.	A. Monochromatic B. Coherent C. Intense D. Multi direction
81	For Holography we use	A. X ray B. Laser C. gama rays D. Beta rays