

PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	In the fusion process, there are	A. Hydrogen isotopes B. Helium isotopes C. Carbon isotopes D. Oxygen isotopes
2	X-rays are also used for	A. Ultrasound imaging B. endoscopy C. Computerized tomography scanning D. Magnetic resonance imaging scanning
3	Lissajou's figures are used in a Cathode Ray Oscilloscope while measuring.	A. Time period B. Frequency C. Voltage gain D. phase angle
4	The most suitable material for moderator in a nuclear reactor is.	A. B B. Cd C. D ₂ O D. Uranium
5	Why FET amplifiers are called voltage controlled devices.	A. Input is a current signal B. Output is a current signal C. Input is a voltage signal D. Output is a voltage signal
6	When a beta particle travels through a medium it knocks out electrons from the atoms due to.	A. Gravitational force of attraction B. Electrostatic force of repulsion C. Nuclear force D. Electromagnetic induction
7	Which of the following properties is not exhibited by X-rays.	A. Interference B. Diffraction C. Polarization D. Deflection of electric field
8	For an electron or positron the rest mass energy is equal to.	A. 0.21 MeV B. 0.51 MeV C. 1.51 MeV D. 1.21 MeV
9	Two electrons approach each other their relative velocity will be.	A. Zero B. c C. c/2 D. Infinity
10	The minimum amount of energy in an individual electron has to gain to escape from a particular surface is called.	A. Threshold frequency B. work function C. Wave number D. Kinetic energy
11	The band width of an audio amplifier is.	A. 10 Hz to 10 kHz B. 20 Hz to 54 Hz C. 20 Hz to 20 kHz D. 20 Hz to 60 kHz
12	Radio carbon in the atmosphere is produced by the bombardment of.	A. Oxygen by high energy neutrons B. Oxygen by high energy protons C. Nitrogen by high energy protons D. Nitrogen by high energy neutrons
13	Half life of a radioactive element is 10 minutes. If the initial count rate is 368 counts per minute for what time count rate reaches 32 counts per minute.	A. 20 minutes B. 40 minutes C. 80 minutes D. 120 minutes
14	The process of pair production will take place if the energy of photon is greater than	A. 0.21 MeV B. 0.51 MeV C. 1.51 MeV D. 1.21 MeV
15	The radius of second orbit of hydrogen atom is	A. 0.071 Å B. 0.142 Å C. 4.752 Å D. 1.91 Å

16	Which circuit elements has two stable states and can be used to store information.	A. Flip flop or latch B. Logic gate C. Oscillator D. Amplifier
17	The change in wavelength of an X-ray when scattered from an electron is called.	A. Compton shift B. Doppler shift C. Stefan's law D. Fraunhofer lines
18	In radiotherapy X-rays are used to.	A. Treat cancer B. Detect bone fracture C. Cure heart disease D. All of the above
19	In a transistor which one is very thin.	A. Collector B. Emitter C. Base D. Depletion region
20	The loss of mass in a.m.u in a nuclear change can be calculated from energy involved in MeV by	A. Dividing by 931 B. Multiplying by 931 C. Diving by 391 D. Multiplying by 391
