PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	Among different elements of the periodic table which of the following atoms is the simplest.	A. Carbon B. Oxygen C. Hydrogen D. Nitrogen
2	In a resistor, when base width decreases with increasing Vbc, this phenomenon is called.	A. Tunneling B. Thermal runway C. Pinch off D. Early effect
3	The binding energy to pull the deuterium H apart into a proton and a neutron is equal to.	A. 1.22 MeV B. 2.22 MeV C. 3.22 Mev D. 4.22 MeV
4	An AND gate is.	A. Equivalent to a series switching circuit. B. Equivalent to a parallel switching circuit C. Equivalent ot universal gate D. A reciprocal of NAND gate
5	An Alpha particle is the same as	A. A helium nucleus B. A high speed electron C. A hydrogen nucleus D. Electromagnetic radiation of short wavelength
6	Phenomenon of radioactivity is due to disintegration of.	A. Proton B. Neutron C. electron D. nucleus
7	Which of the following properties is not exhibited by X-rays.	A. Interference B. Diffraction C. Polarization D. Deflection of electric field
8	Which of the following is not a mode of radioactive decay	A. Nuclear fusion B. Alpha decay C. Electron capture D. Positron emission
9	The energy that must be added to separate the nucleus is called.	A. Critical energy B. Binding energy C. Gravitational energy D. Electrostatic energy
10	Which of the following has greatest binding energy per nucleon.	A. Normal hydrogen B. Deuterium C. Tritium D. Helium-4
11	The hyperfine lines in the spectrum relates to	A. Stark effect B. Zeeman effect C. Lande's spliting D. Nuclear magnetic spin
12	The half life of a radioactive substance as compared to its mean lif eis.	A. 30% B. 50% C. 70% D. 90%
13	What is the relativistic version of the Schrodinger equation.	A. Klein Gordon equation B. Laplace equation C. Quadratic equation D. Binomial equation.
14	The phenomenon in which a photon of frequency 'f' is scattered by an electron and the scattered photon has frequency f <f is known as.	A. Pair production B. Pair annihilations C. Photoelectric effect D. Compton's effect
		A. Radioactivity

15	In which reaction two or more small light nuclei nuclei come together or fuse to form a large nucleus.	B. Radioactivity dating C. Nuclear fusion D. Nuclear fission
16	The value of open loop gain for the amplifier is	A. zero B. very low C. very high D. of an intermediate vaue
17	In potential for the material of cathode pure metals are rarely used because of their	A. Low reflecting power B. High reflecting power C. Low resolving power D. High resolving power
18	A complete amplifier circuit made on a silicon chip and enclosed in a small capsule is	A. Inductor B. Metal detector C. Diode D. Operational amplifier
19	The converse of pair production is	A. Annihilation of matter B. Materialization C. Compton effect D. Photo electric effect
20	Deuterium is	A. A transuranic element B. A type o cosmic particle C. An isotope of hydrogen D. An isotope of helium