PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	Which one of the following gates in a a universal gate.	A. OR B. AND C. NOT D. NAND
2	The best shield against Gama rays would be of	A. Heavy water B. Aluminium C. Iron D. Lead
3	Which of the following is the most massive particle.	A. Deuteron B. Alpha particle C. Neutron D. positron
4	The radius of second orbit of hydrogen atom is	A. 0.071 A B. 0.142 A C. 4.752 A D. 9.5298 A
5	Binding energy per nucleon is.	A. Greatest for heavy nuclei B. Least for heavy nuclei C. Greatest for light nuclei D. Greatest for medium weight nuclei
6	What is the overall gain, if three amplifiers each with a gain of 30 are cacaded.	A. 30 B. 90 C. 270 D. 27,000
7	Which temperature is required for the fusion of two nuclides.	A. 10⁶ K B. 10⁷K C. 10⁸K D. 10 ⁹ K
8	The maximum energy of emitted photoelectron is measured by	A. the largest potential difference they can traverse B. The current they produce C. The potential difference they produce D. The speed with they emerge
9	Specially designed solid state detector can be used to detect.	A. Alpha particles B. Beta particles C. Gama rays D. X- rays
10	Radius of the Bother's orbit is r the radius of second orbit will be.	A. 2 r B. 3 r C. 4 r D. 8 r
11	X-rays are not used in RADARs because	A. They are not reflected by the target B. they are not completely absorbed by air C. They damage the target D. They are reflected by the target
12	A darling ion amplifier is characterized by	A. High voltage and current gain B. High input resistance and current gain C. High output resistant and current gain D. Low input resistance and current gain
13	Two electrons approach each other their relative velocity will be.	A. Zero B. c C. c/2 D. Infinity
14	The decay to form other nuclides by emitting particles and electromagnetic radiations by unstable nuclides is called.	A. Nuclear stability B. Radioactivity C. Carbon dating

		D. Spontaneously
15	One becquerel is equal to	A. Decay of orie radioactive atoms per second B. Decay of 10 radioactive atoms per secnd C. Decay of 100 radioactive atoms per second D. Decay of infinity radioactive atoms per second.
16	LASER is a device which can produce.	A. Monochromatic beam of light B. Coherent beam of light C. An intense beam of light D. All of the above
17	If an object moves with velocity of light the apparent mass of the object as compared to list original mass is	A. greater B. Smaller C. Same D. zero
18	The SI unit of current gain is.	A. Ampere B. Ampere metre C. Ampere volt D. It has no unit
19	The mass of an alpha particle is.	A. 2 u B. 4 u C. 6 u D. 8 u
20	Half life and mean lifetime of a radioactive element are.	A. Equal to each other B. Inversely proportional to each other C. Directly proportional to each other D. Not related to each other