

PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	The X-rays coming from a X-rays tube	A. Is monochromatic B. Has all wavelengths smaller than a certain maximum wavelength C. Has all wavelengths greater than a certain maximum wavelength D. has all wavelengths minimum than a certain maximum wavelength
2	The emission of electrons from a metal surface when exposed to light of suitable frequency is called.	A. Pair production B. Compton effect C. Photo electric effect D. Zeeman effect
3	Most widely used types of gas LASER are	A. Neon B. Argon ion C. Helium D. All of these
4	The energy equivalent of 1 kg of matter a	A. 10^{15} J B. 1 J C. 10^{12} J D. 10^{17} J
5	How many terminals does a BJT have.	A. 1 B. 2 C. 3 D. 4
6	What are isotopes.	A. Atoms of the same element with different numbers of neutrons. B. Atoms of the same element with different numbers of protons. C. Atoms which are radioactive D. Atoms which have gained or lost an electron
7	Which particle is removed by a photon.	A. Quark B. Electron C. Proton D. Neutron
8	A slow neutron can cause fission in	A. Uranium -238 B. Uranium-235 C. Hydrogen-1 D. Thorium -232
9	The simple form of particle accelerator is.	A. Cathode ray tube B. Oscillator C. Amplifier D. Phase locked loop
10	The hyperfine lines in the spectrum relates to	A. Stark effect B. Zeeman effect C. Lande's splitting D. Nuclear magnetic spin
11	In an electronic transition atom cannot emit	A. Gama rays B. Visible rays C. Infrared rays D. Ultraviolet rays
12	Half life of a radioactive elements 10 minutes If the initial cont. 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
13	The half life of uranium -238 is	A. 1620 years B. 4.5×10^9 years C. 3-8 days D. 23.5 minutes
14	The tunnel effect makes possible	A. Alpha decay B. Gama rays C. Positive Beta decay D. Negative Beta decay

		D. negative Beta decay
15	the wavelength of continuous X-rays is inversely proportional to.	A. Intensity of incident electron beam B. Temperature of the target C. Intensity of X-rays D. The energy of electrons striking the target
16	An active component of an electronic circuit consisting of a small block of semiconducting material to which at least three electrical contacts are made is known as.	A. Rectifier B. Amplifier C. Thermocouple D. Transistor
17	An important property of an ideal power supply is.	A. Infinite internal resistance B. Zero internal resistance C. Large output resistance D. Small output resistance
18	Which particles have spin quantum number $1/2$	A. Mesons B. Leptons C. Hadrons D. Muons
19	A newly prepared radioactive nuclide has a decay constant λ of 10^{-6} s^{-1} What is the approximate half life of the nuclide.	A. 1 hour B. 1 day C. 1 week D. 1 month
20	Which of the following can be used as an arrester in a nuclear reactor.	A. Graphite B. heavy water C. Uranium D. Cadmium