

PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	Transistor are made from	A. Plastics B. Metals C. Insulators D. Doped semiconductors
2	A transistor consists of.	A. One p-n junction B. Two p-n junctions C. Three p-n junctions D. Four p-n junction
3	Radioactive substances do not emit	A. Alpha particles B. Beta particles C. Gama rays D. Neutrons
4	Cosmic rays mostly comprise of	A. Neutral particles B. Negative charged particles C. Positively charged particles D. Ions
5	Compton scattering experiment seemed to indicate that radiation had	A. Wave nature B. Particle nature C. Wave particle nature D. X-rays nature
6	The Compton effect in X-rays proves that	A. Electrons have wave property B. x-rays have wave properly C. X-rays have particle characteristics D. Electrons cannot exist
7	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
8	The relationship between mass number atomic number and neutron number is.	A. $A = Z + N$ B. $A = Z - N$ C. $Z = A + N$ D. $N = Z - A$
9	Which of the following describes that the time interval between two events may be different in different of references	A. Simultaneously B. Time dilation C. Length contraction D. Mass variation
10	Which of the following circuits is used as local oscillator in radio receivers.	A. AF oscillator B. Phase Local Loop C. RF oscillator D. All of the above
11	Which of the following propagates at the same speed as velocity of light.	A. Heat waves B. Sound waves C. Shock waves D. β particles
12	What is the relativistic version of the Schrodinger equation.	A. Klein Gordon equation B. Laplace equation C. Quadratic equation D. Binomial equation.
13	The half life of isotopes X is four days and its initial mass is 32 mg What mass of the isotope X will remain after twelve days.	A. 2 mg B. 4 mg C. 8 mg D. 18 mg
14	The term used for the emission of electrons when light strikes a surface.	A. The zeeman effect B. The photo electric effect C. Skin effect D. Compton effect
15	The half life of radium -226 is	A. 1620 years B. 45×10^9 years C. 3.8 days D. 226 years

D. 23.5 minutes

16 Hydrogen bomb is based on

- A. Controlled chain reaction
- B. Uncontrolled chain reaction
- C. Nuclear fusion
- D. Nuclear fission

17 What is the basic advantage of class A operation of an amplifier.

- A. It has high efficiency
- B. It has high gain
- C. It has low distortion
- D. It has high distortion

18 Which of the following are particle accelerators.

- A. Cyclotrons
- B. Synchrotrons
- C. Linear accelerators
- D. All of the above

19 An operational amplifier can be used as a

- A. Comparator
- B. Night switch
- C. Inverting and non inverting amplifier
- D. All of the above

20 The value of principal quantum number for an ionized atom is.

- A. 13.6 eV
- B. 27.2 eV
- C. 54.4 eV
- D. 100 eV