

PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	Which of the following wavelength lies in X-rays region.	A. 1 A B. 100 A C. 1,000 A D. 10,000 A
2	In a cloud chamber the Alpha particles leave	A. Dense, straight and continuous tracks B. Only straight and continuous tracks C. Thin and discontinuous tracks D. Irregular tracks
3	Which of the following has greatest binding energy per nucleon.	A. Normal hydrogen B. Deuterium C. Tritium D. Helium-4
4	The neutral atoms of all isotopes of the same element contain the same numbers of.	A. Electrons and protons B. Electrons and neutrons C. Neutrons D. Neutrons and protons
5	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
6	Which of the following is not an electromagnetic wave.	A. gamma rays B. Ultraviolet rays C. Ultrasonic waves D. Microwaves
7	Which of the following are electromagnetic waves.	A. Alpha particles B. Beta particles C. Gama rays D. Water waves
8	Which of the following radiations will burn human skin	A. Infrared B. Ultraviolet C. X rays D. Alpha particles
9	If an object moves with velocity of light the apparent length of the object moving the direction of motion becomes.	A. Larger B. Smaller C. Zero D. Infinity
10	Besides U ²³⁵ what else is needed for making as atomic bomb.	A. Electons B. Protons C. Neutrons D. Photons
11	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
12	A perfect back body	A. Is a perfect absorber of all radiations B. Is a perfect reflector of all radiations C. Is a perfect reflector of visible lights radiations D. Is a brownish object
13	The Rutherford atom according to classical theory is	A. Stable B. Unstable C. Partially stable D. Quantized
14	The maximum K.E. with which photoelectrons are emitted depends very strongly on the.	A. Intensity of incident light B. Electric field near the photocathode

C. Frequency of incident light
D. Polarization of incident light

15 The angular speed of an electron in the n th orbit of Bohr's hydrogen atom is.

A. Directly proportional to n
B. Directly proportional to n^2
C. Inversely proportional to n
D. Inversely proportional to n^2

16 Which of the following is not a mode of radioactive decay.

A. Positron emission
B. Electron capture
C. Fusion reaction
D. α decay

17 The half life of a given radioactive isotope is 10 years The original mass of the isotope is 12 g What mass of this isotope remains un decayed after 20 years.

A. 0.5 g
B. 1.2 g
C. 3.0 g
D. 6.0 g

18 Which configuration is used to connect high impedance source to a low impedance load.

A. CE
B. CB
C. CC
D. BE

19 The molecular weight of D_2O is

A. 16
B. 18
C. 20
D. 24

20 The half life of a radioactive substance depend on.

A. Pressure
B. Temperature
C. Amount of substance
D. No external influences