PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	Isotopes are the atoms of the same elements which contain equal number of.	A. Nucleus B. Neutrons C. Protons D. Electrons
2	Lissajou's figures are used in a Cathode Ray Oscilloscope while measuring.	A. Time period B. Frequency C. Voltage gain D. phase angle
3	The critical mass of fissionable uranium -235 can be reduced by	A. Adding impurities to it B. Heating the material C. surrounding it by neutron reflecting material D. Surrounding it by neutron absorbing material
4	When using the formula E = h lambda what unit should energy have.	A. Joule B. Watt second C. Newton metre D. Electron volt
5	The constant lamda is called the.	A. Decay constant B. Gas constant C. Planck's constant D. Dose constant
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	An increase in frequency above threshold frequency results in.	A. Increase in photo electric current B. Increase in K.E. of electrons C. Decrease in photoelectric current D. Decreases in K.E. of electrons
8	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
9	NOR gate is a combination of.	A. OR gate and NOT gate B. OR gate and AND gate C. OR gate and OR gate D. NOT gate and AND gate
10	Which of the following are particle accelerators.	A. Cyclotrons B. Synchrotrons C. Linear accelerators D. All of the above
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	Cobalt -60 is a radioactive element with half life of 5.25 years. What fraction of the original sample will be left after 26 years.	A. 1/4 B. 1/8 C. 1/16 D. 1/32
13	An emitter follower has	A. High input impedance and high output impedance B. High input impedance and low output impedance C. Low input impedance and low output impedance D. Low input impedance and high output impedance

14	In n-p-n transistor the current flows in the direction from	A. Emitter to base B. emitter to collector C. Base to emitter D. Base to collector
15	The energy of neutrons obtained during a fission reaction is.	A. 0.1 MeV B. 1 KeV C. 1 MeV D. Zero
16	Which quantity remains fixed in isobars.	A. Mass number B. Atomic number C. Number of neutrons D. Number of protons
17	Marie Curie and Pierre Curie discovered two new radioactive elements which are.	A. Uranium and radkum B. Platinum and radium C. Polonium and radium D. Crypton and radon
18	Which of the following is formed by decay of a free neurton.	A. A number of electrons B. Two protons C. A proton and an electron D. An alpha particle
19	Radioactivity is the phenomenon associated with the.	A. Transition of radiowaves B. production of alpha particles only C. Decay of nucleus D. Reception of radio waves
20	Why hydrogen atom does not emit x-rays.	A. its size is very small B. It contains only single electron C. In it energy levels are for apart D. In it energy levels are close to each other