

PPSC Physics Topic 7 Modern Physics

Sr	Questions	Answers Choice
1	Which experiment is a demonstration that matter and energy can display properties of both waves and particles.	A. young's double slit experiment B. Division germier experiment C. Heisenberg's uncertainty experiment D. Stern Gerlach experiment
2	Which one of the following quantities is conserved in a nuclear reactor.	A. Energy only B. Mass only C. Momentum only D. Mass energy and momentum
3	The binding energy per nucleon for uranium is about.	A. 7.7 MeV B. 9.6 MeV C. 13.6 MeV D. 21.6 MeV
4	In a Nuclear reactor which material is often used as modeerator.	A. Water B. Graphite C. Uranium D. Water and graphite
5	The number of electrons in U nucleus are.	A. 92 B. 235 C. zero D. 143
6	An operational amplifiers will act as an inverting amplifier when the input signal is connected to.	A. Inverting terminal B. Non inverting terminal C. Earthened wire D. Both a and b
7	In which reaction two or more small light nuclei nuclei come together or fuse to form a large nucleus.	A. Radioactivity B. Radioactivity dating C. Nuclear fusion D. Nuclear fission
8	The path of electron in Rutherford atomic model according to classical theory a.	A. Parabolic B. Straight line C. Spiral D. Circular
9	What is the effect of electric and magnetic fields on X-rays	A. X-rays are deflected B. X-rays are not deflected C. X-rays are sometimes deflected and sometimes not D. Nothing can be said
10	The chain reaction is controlled by a series of rods usually made of.	A. uranium B. Cadimium C. Boron D. Steel
11	the alpha particle does not travel for enough in air.	A. Due to its intense ionization B. Due to its large mass C. Due to its high charge D. Due to its Hight Ionization
12	The division and germier experiment relates to	A. Diffusion B. interference C. Polarization D. Electron diffraction
13	For an electron or positon the rest mass energy is equal to.	A. 0.21 MeV B. 0.51 MeV C. 1.51 MeV D. 1.21 MeV
14	When light of particular frequency is allowed to fall upon a metal surface electrons are emitted from a these emitted electrons are called.	A. Photons B. Holes C. Quants D. Photo electrons
15	In a photocell, certain metals emit electrons for	A. Visible light B. X-rays C. Infrared light

D. Ultraviolet light

16	Mean life of a radioactive sample is 100 s its half life will be	A. 0.693 s B. >1 s C. 6.93 s D. 69.3 s
17	An Alpha particle is the same as	A. A helium nucleus B. A high speed electron C. A hydrogen nucleus D. Electromagnetic radiation of short wavelength
18	The back ground radiation in the atmosphere on the average is	A. 0.5 Sv per year B. 1.0 Sv per year C. 1.5 Sv per year D. 2.0 Sv per year
19	Compton scattering experiment seemed to indicate that radiation had	A. Wave nature B. Particle nature C. Wave particle nature D. X-rays nature
20	A complete amplifier circuit made on a silicon chip and enclosed in a small capsule is	A. Inductor B. Metal detector C. Diode D. Operational amplifier