

## PHYSICS QUESTION PAPER

1. Bodies which do not allow the charges to pass through it are called\_\_\_\_\_.  
a) Conductors b) Insulator c) Semiconductor d) Superconductor.
2. Two equal and opposite charges separated by a small distance constitute an\_\_\_\_\_.  
a) Electric Dipole b) Electric Quadrapole c) Electric Octapole d) Electric Potential.
3. \_\_\_\_\_ is defined as the rate of flow of charges across any cross-sectional area of a conductor.  
a) Current b) Velocity c) Resistivity d) None of the above.
4. Electromagnetic waves are\_\_\_\_\_.  
a) Transverse b) Longitudinal c) May be Transverse or Longitudinal d) Neither Transverse nor Longitudinal.
5. What is polarizer?  
a) A device which examines a plane polarized light  
b) A device which produces a plane polarized light.  
c) The instrument used for the measurement of potential difference  
d) A device used to perform constructive Interference of Light.
6. The cathode rays are\_\_\_\_\_.  
a) A stream of electrons b) A stream of positive ions c) A stream of uncharged particles d) None of the above.
7. Isotopes have  
a) Same Mass number but different Atomic number  
b) Same Proton number and Neutron number  
c) Same Proton number but different Neutron number  
d) Same mass number.
8. What is  $\alpha$ -rays?  
a) It is a helium nucleus consisting of two protons and two neutrons.  
b) It carries one unit of negative charge and mass equal to that of an electron  
c) They are electromagnetic waves of very short wavelength  
d) It is a stream of uncharged particle.
9. The process of breaking up of the nucleus of a heavier atom in to 2 fragments with the release of large amount of energy is called\_\_\_\_\_.  
a) Nuclear Fission b) Nuclear Fusion c) Chain Reaction d) Controlled Chain reaction.
10. When the positive terminal of the battery is connected to the P-side and negative terminal to the N-side then the PN junction diode is said to be\_\_\_\_\_.  
a) Reverse biased b) Forward biased c) Avalanche Breakdown d) Avalanche Effect.
11. \_\_\_\_\_gates are called Universal gates.  
a) NOT and NOR b) AND and NOR c) NAND and NOR d) OR and NOT.

12. When the frequency of carrier wave is changed in accordance with the intensity of the signal, the process is called\_\_\_\_\_.  
a) Amplitude Modulation b) Frequency Modulation c) Band width d) None of the above.
13. Four charges  $+q$ ,  $+q$ ,  $-q$  and  $-q$  respectively are placed at the corners A,B,C and D of a square of side 'a'.The Electric potential at the centre 'O' of the square is\_\_\_\_\_.  
a)  $q/4\pi\epsilon_0a$  b)  $4q/4\pi\epsilon_0a$  c) Zero d)  $4q$ .
14. The phenomenon of producing an induced emf due to the changes in the magnetic flux associated with a closed circuit is known as \_\_\_\_\_.  
a) Electromagnetic Induction b) Thermoelectric current c) Photo-electric current d) Magnetic Induction.
15. The ratio of longitudinal stress to longitudinal strain is known as\_\_\_\_\_.  
a) Young's Modulus of the material b) Bulk Modulus of the material c) Rigidity Modulus of the material d) Moment of Inertia.
16. The bending of the waves around the edges of an obstacle is called\_\_\_\_\_.  
a) Interference b) Diffraction c) Refraction d) Polarisation.
17. Which of the following quantity is scalar?  
a) Electric Force b) Electric field c) Electric Potential d) All the above.
18. The material through which electric charge can flow easily is \_\_\_\_\_.  
a) Rubber b) Quartz c) Copper d) Glass.
19. The unit used to express the mass of the nucleus is \_\_\_\_\_.  
a) Atomic mass unit b) Metre c) Centimetre d) Millimetre.
20. Best example for semiconductor is \_\_\_\_\_.  
a) Germanium b) Copper c) Wood d) Rubber.
21. The SI unit of Electric field strength is \_\_\_\_\_.  
a) Newton/Coulomb b) Coulomb c) Newton d) Coulomb metre.
22. \_\_\_\_\_ gate or Invertor is a device whose output is 1 when its input is 0 and whose output is 0 when its input is 1.  
a) OR Gate b) AND Gate c) NOT Gate d) None of the above.
23. The ejection of electrons from the surface of the metal under the action of light is called \_\_\_\_\_.  
a) Gravitation effect b) Magnetic effect c) Photo-electric effect d) Peltier Effect.
24. The rate of change of displacement is \_\_\_\_\_.  
a) Velocity b) Dispersion c) Energy d) Acceleration.
25. The property of a conductor which enables to induce an emf in it when the current in the circuit changes is called \_\_\_\_\_.  
a) Self-Induction b) Mutual Induction c) Thermal Conduction d) Thermoelectric current.

#### Answers-Physics

- 1)b 2) a 3)a 4) a 5) b 6) a 7)c 8) a 9) a 10) b 11) c 12) b 13) c 14) a 15)a 16) b 17) c 18) c 19) a 20) a 21) a 22) c 23) c 24) a 25) a