

Chapter 13: Modern Physics and Electronics

1. What is the 'p' section in the n-p-n transistor? [All Board-18]

(a) Collector	(b) Emitter	
(c) Base	(d) Amplifier	(c)
2. Which of the following in an address of **rahim43@yahoo.com**? [D.B.-17]

(a) Fax address	(b) Internet address	
(c) E-mail address	(d) G-mail address	(d)
3. Which one is semi-conductor? [Dj.B.-17]

(a) Cassium	(b) Germanium	
(c) Glass	(d) Plastic	(b)
4. The speed of which ray of the following is $3 \times 10^8 \text{ ms}^{-1}$? [Dj.B.-17]

(a) Alpha	(b) Beta	
(c) Gamma	(d) X-ray	(c)
5. What is **npn**? [Dj.B.-17]

(a) Diode	(b) Triode	
(c) Rectifier	(d) Transistor	(d)
6. Which scientist invented the radio-activity of uranium? [C.B.-17]

(a) Max Plank	(b) Becquerel	
(c) Albert Einstein	(d) Neill Bohr's	(b)
7. Which of the following is the alpha particle? [Ctg.B.-17]

(a) Helium nucleus	(b) Tritium	
(c) Deuterium	(d) Hydrogen particle	(a)
8. Radium metal transactions into which of the following through radioactive disintegration step by step? [Ctg.B.-17]

(a) Aluminium	(b) Lead	
(c) Silver	(d) Iron	(b)
9. Who invented of vacuum tube first? [S.B.-17]

(a) Addision	(b) Fleming	
(c) Marconi	(d) De Forest	(b)
10. On which does the resistance of a conductor depend? [J.B.-17]

(a) Potential	(b) Electric current	
(c) Electric intensity	(d) Cross sectional area	(d)
11. How many basic colours in a colour TV? [D.B.-16]

(a) 3	(b) 4	
(c) 5	(d) 7	(a)
12. Which machine works on the principle of electromagnetic induction? [D.B.-16]

(a) Motor	(b) Generator	
(c) Transformer	(d) Hair dryer	(c)
13. What do you mean by alpha particle emitting from radioactive elements? [R.B.-16]

(a) A helium nucleus	(b) A hydrogen particle	
(c) A charge neutral particle	(d) A negative charged particle	(a)
14. What is called a silicon chip if million of circuit is added it? [R.B.-16]

(a) Semiconductor diode	(b) Electric capacitor	
(c) Integrated circuit	(d) p-n-p junction	(c)
15. Who discovered the radioactivity of Uranium? [Dj.B.-16]

(a) Roentgen	(b) Newton	
(c) Niels Bohr	(d) Becquerel	(d)
16. Which one of the following is the function of a rectifier? [Dj.B.-16]

(a) Increases the electric current	(b) Amplify voltage	
(c) Decrease the electric current	(d) Makes the electric current unidirectional	(d)
17. What is the function of a camera in television transmission? [Dj.B.-16]

(a) To convert the sound waves into picture	(b) To convert the picture into sound waves	
(c) To convert the electrical signals into picture	(d) To convert the picture into electrical signals	(d)
18. Which one is the characteristic of gamma ray? [Ctg.B.-16]

(a) Velocity is 10% greater than velocity of light	(b) Its a positively charged particle	
(c) It has no mass	(d) It has greater ionization power	(c)
19. p-type semiconductor is made by adding— [Ctg.B.-16]

(a) phosphorus with silicon	(b) boron with silicon	
(c) antimony with germanium	(d) phosphorus with germanium	(b)
20. What is the function of a microphone when a singer sings holding it in hand? [Ctg.B.-16]

(a) The sound is amplified	(b) The sound is transferred to electrical energy	
(c) The intensity of sound is amplified	(d) Thick vocal chord is converted to thin vocal chord	(b)
21. In a photocopier machine, the reflected light centers on which of the following? [S.B.-16]

(a) Toner	(b) Roller	
(c) Drum	(d) Printed part of paper	(c)
22. What is the speed of γ ray? [S.B.-16]

(a) $3 \times 10^8 \text{ ms}^{-1}$	(b) $1.67 \times 10^{19} \text{ ms}^{-1}$	
(c) $3.2 \times 10^{19} \text{ ms}^{-1}$	(d) $9.11 \times 10^{19} \text{ ms}^{-1}$	(a)
23. Which one of the objects added to convert of p-type semiconductor? [S.B.-16]

(a) Phosphorus	(b) Carbon	
(c) Boron	(d) Nitrogen	(c)
24. Which one of the following is the form of energy converting in an electric motor? [S.B.-16]

(a) Heat energy \rightarrow Electrical energy	(b) Heat energy \rightarrow Mechanical energy	
(c) Electrical energy \rightarrow Mechanical energy	(d) Mechanical energy \rightarrow Electrical energy	(c)
25. Which particle of mass $9.11 \times 10^{-31} \text{ kg}$? [J.B.-16]

(a) Alpha particle	(b) Gamma particle	
(c) Beta particle	(d) Radioactive ray	(c)
26. In n-p-n transistor, what is 'p' part? [B.B.-16]

(a) Emitter	(b) Collector	
(c) Base	(d) Amplifier	(c)