

CHAPTER 13 : MODERN PHYSICS AND ELECTRONICS**Instructions:**

- ✓ Read the chapter in your book - quickly and thoroughly, preferably more than once.
- ✓ Contact me in case of any difficulties in understanding.

(Questions given in this worksheet are important questions for all exams)

MCQs

(Solve Yourself)

- 31.** Which one is used to create IC?
a) germanium
b) silicon
c) arsenic
d) antimony
- 32.** Which one is a semiconductor?
a) silicon
b) copper
c) gold
d) man
- 33.** Which signal amplifies as it travels?
a) analogue
b) digital
c) audio
d) video
- 34.** Which signal is transmitted through optical fiber?
a) digital
b) analogue
c) audio
d) video
- 35.** Which one is a semiconductor?
a) germanium
b) copper
c) gold
d) iron
- 36.** When it is cold, pure semiconductor works as -
a) conductor
b) semiconductor
c) insulator
d) good conductor

- 37.** What will we get if phosphorus is mixed with silicon?
- p-type
 - n-type
 - rectifier
 - silicon phosphate
- 38.** How many layer does transistor have?
- 1
 - 2
 - 3
 - 4
- 39.** Microphone converts sound into -
- sound
 - electrical signal
 - mechanical signal
 - all of the above
- 40.** Which one can be found in a microphone?
- diaphragm
 - carbon
 - moving coil
 - moving coil and diaphragm
- 41.** Microphone converts sound energy into electrical energy which is called -
- video signal
 - audio signal
 - digital signal
 - analogue signal
- 42.** Which one converts electric signal into sound?
- microphone
 - speaker
 - diode
 - transistor
- 43.** What is done to convert low frequency wave into high frequency wave?
- modulation
 - demodulation
 - reflection
 - diode
- 44.** Which one separates video electrical signal from the carrier wave?
- diode
 - rectifier
 - transistor
 - antenna
- 45.** What is attached to the back of the picture tube of the television?
- picture tube
 - rectifier
 - electron
 - electron gun
- 46.** How many electron guns are in the camera of colour television for the three basic colours?
- 2
 - 3
 - 4
 - 5
- 47.** Who discovered X-ray?
- Becquerel
 - Roentgen
 - Hook
 - Maxwell
- 48.** Which one is the mother of all networks?
- computer
 - television
 - internet
 - Windows-98

- 49.** What is meant by alpha particle emitting from radioactive elements?
a) a hydrogen nucleus
b) a helium nucleus
c) a charge neutral particle
d) a negative particle
- 50.** What is actually beta ray emits due to radioactive decay?
a) the flow of negative electron
b) a charge neutral particle
c) a positive nucleus
d) flow of positive protons
- 51.** What is called a silicon chip if millions of circuit is added to it?
a) parallel circuit
b) semiconductor transistor
c) integrated circuit
d) semiconductor diode
- 52.** What is the function of a camera in broad-casting television?
a) to transform picture into electrical signal
b) to transform picture into sound wave
c) to transform electrical signal into picture
d) to transform sound wave into picture
- 53.** How many basic colours are there in a colour TV?
a) 3
b) 4
c) 5
d) 6
- 54.** Which basic colours are there in colour television camera?
a) red, green and orange
b) red, blue and green
c) red, green and yellow
d) red, green and violet
- 55.** Which one has ionizing power?
a) alpha particle
b) gamma ray
c) beta particle
d) all of them
- 56.** P-type semiconductor is made by adding -
a) phosphorus with silicon
b) boron with silicon
c) antimony with germanium
d) phosphorus with germanium
- 57.** What is the function of microphone when a singer sings holding it in hand?
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
- 58.** Which one of the objects is added for conversion of p-type semiconductor?
a) phosphorus
b) carbon
c) boron
d) nitrogen
- 59.** In n - p - n transistor, what is 'p' part?
a) emitter
b) collector
c) base
d) amplifier
- 60.** In which no free electron exists?
a) conductor
b) insulator
c) semi-conductor
d) good conductor