1. A crystal diode has ……
(a) one pn junction
(b) two pn junctions
(c) three pn junctions
(d) none of the above

2. A crystal diode has forward resistance of the order of ……
(a) kΩ
(b) Ω
(c) MΩ
(d) none of the above

3. If the arrow of crystal diode symbol is positive w.r.t. bar, then diode is …….. biased.
(a) forward
(b) reverse
(c) either forward or reverse
(d) none of the above

4. The reverse current in a diode is of the order of …….
(a) kA
(b) mA
(c) µA
(d) A

5. The forward voltage drop across a silicon diode is about ……
(a) 2.5 V
(b) 3 V
(c) 10 V
(d) 0.7 V

6. A crystal diode is used as ……

(a) an amplifier
(b) a rectifier
(c) an oscillator
(d) a voltage regulator

7. An ideal crystal diode is one which behaves as a perfect …….. when forward biased.
(a) conductor
(b) insulator
(c) resistance material
(d) none of the above

8. The leakage current in a crystal diode is due to …….
(a) minority carriers
(b) majority carriers
(c) junction capacitance
(d) none of the above

9. If the temperature of a crystal diode increases, then leakage current ……..
(a) remains the same
(b) decreases
(c) increases
(d) becomes zero

10. If the doping level of a crystal diode is increased, the breakdown voltage…….
(a) remains the same
(b) is increased
(c) is decreased
(d) none of the above

11. The knee voltage of a crystal diode is approximately equal to …….

(a) applied voltage
(b) breakdown voltage
(c) forward voltage
(d) barrier potential

12. A crystal diode is a …… device
(a) non-linear
(b) bilateral
(c) linear
(d) none of the above

13. A zener diode is used as …….
(a) an amplifier
(b) a voltage regulator
(c) a rectifier
(d) a multivibrator

14. A zener diode is always …… connected.
(a) reverse
(b) forward
(c) either reverse or forward
(d) none of the above

15. The electrical resistance of the depletion layer is large because
(a) It has no change carriers
(b) It has a large number of charge carriers
(c) It contains electrons as charge carriers
(d) It has holes as charge carriers

16. When a PN junction diode is reverse biased
(a) Electrons and holes are attracted towards each other and move towards the depletion region

(b) Electrons and holes move away from the junction depletion region
(c) Height of the potential barrier decreases
(d) No change in the current takes place

17. On increasing the reverse bias to a large value in a PN junction diode, current
(a) Increases slowly
(b) Remains fixed
(c) Suddenly increases
(d) Decreases slowly

18. Which of the following are the charge carriers available in BJT?
(a) Holes
(b) Electrons
(c) Neutrons
(d) Both a and b

19. How many terminals do a BJT have?
(a) 1
(b) 2
(c) 3
(d) 4

20. Which of the following BJT terminal controls the current flow?
(a) Base
(b) Collector
(c) Emitter
(d) All of the above

21. Which of the following terminals of BJT are slightly doped?
(a) Base
(b) Collector

(c) Emitter
(d) Both b and c

22. Which of the following terminals of BJT are heavily doped?
(a) Base
(b) Collector
(c) Emitter
(d) Both b and c

23. Which of the following terminals of BJT is extremely thin?
(a) Base
(b) Collector
(c) Emitter
(d) Both b and c

24. The arrow in BJT symbol represents
(a) Flow of current
(b) Flow of resistance
(c) Direction of current
(d) Both a and c

25. Which of the following BJT region does amplification?
(a) Active
(b) Cut-off
(c) Saturation
(d) Both a and c

26. Which of the following region in BJT is an linear region?
(a) Active
(b) Cut-off
(c) Saturation
(d) Both a and c

27. Which of the following region in BJT is an non-linear region?
    (a) Active
    (b) Cut-off
    (c) Saturation
    (d) Both b and c

28. Which of the following BJT region perform switching?
    (a) Active
    (b) Cut-off
    (c) Saturation
    (d) Both b and c

29. Which of the following terminal is grounded in common base configuration of BJT?
    (a) Base
    (b) Emitter
    (c) Collector
    (d) Drain

30. Which of the following terminal is grounded in common emitter configuration of BJT?
    (a) Base
    (b) Emitter
    (c) Collector
    (d) Drain

31. What is gain value of common base BJT?
    (a) = 1
    (b) <1
    (c) >1
    (d) 0

32. The equation of emitter current of BJT?
    (a) Ie=Ic+Ib
    (b) Ie=Ic-Ib
    (c) Ie=Ic/Ib
    (d) Ie=Ic*Ib

33. The value of input impedance of common emitter configuration of BJT is _____?
    (a) High
    (b) Low
    (c) Medium
    (d) Zero

34. The value of output impedance of common emitter configuration of BJT is _____?
    (a) High
    (b) Low
    (c) Medium
    (d) Zero

35. The value of phase angle of CE is _____?
    (a) 0
    (b) 180
    (c) 90
    (d) 45

36. The value of current gain of common emitter BJT is ___?
    (a) High
    (b) Low
    (c) Medium
    (d) Zero

37. The value of current gain of common base BJT is ___?
    (a) High
    (b) Low
    (c) Medium
    (d) Zero

38. What does MOSFET stands for?
    (a) **Metal Oxide Semiconductor Field** Effect Transistor
    (b) Modern Oxidized Silicon based Field Effect Transistor
    (c) Modern Oxidized Silicon based Force Effect Transistor
    (d) Metal Oxide silicon Field Equivalent Transistor

39. What type of a device is MOSFET?
    (a) Current-controlled
    (b) Voltage-controlled
    (c) Voltage-controlled Current source
    (d) Voltage-controlled Voltage source

40. How many terminals does a MOSFET possess?
    (a) One
    (b) Two
    (c) Three
    (d) Four

41. Which transistor is preferred for applications of High power?
    (a) BJT
    (b) UJT
    (c) MOSFET
    (d) JFET

42. Which Transistor is used in VLSI?
    (a) JFET
    (b) UJT
    (c) MOSFET
    (d) CMOS

43. Depletion mode MOSFETs can operate in _____ mode.
    (a) Enhancement
    (b) Depletion
    (c) Enhancement and Depletion
    (d) none of the above

44. MOSFET is _____.
    (a) Unidirectional
    (b) Bidirectional
    (c) Unipolar
    (d) b & c

45. CMOS stands for _____.
    (a) Complementary Metal Oxide Semiconductor
    (b) Commutative Metal Oxide Semiconductor
    (c) Cosmopolitan MOS
    (d) Customize MOS

46. When no ac input signals are connected to CE Transistor, Load line can be plotted
    (a) V_{CE} Vs V_{CC}
    (b) V_{CE} Vs I_E
    (c) V_{CE} Vs I_C
    (d) V_{BE} Vs I_B

47. Operating point of a transistor amplifier is known as

a. Saturation point
b. Quiescent point
c. Cut-off point
d. Flood in point

48. In how many regions can a biased transistor work?
a. One
b. Two
c. Three
d. Four

49. Which of the following method of biasing provides the best operating point stability?
a. Fixed resistor bias
b. Collector to base bias
c. Emitter bias
d. Self bias

50. Transistor biasing is done to keep ……..in the circuit
a. Proper direct current
b. Proper alternating current
c. Base current small
d. Collector current small