MULTIPLE CHOICE QUESTIONS

1) Atomic number of silver is 47. the number of its valence electrons would be

a. 2 b. 32 c. 8 d. Is

2) In a n-type crystal, the majority carriers are:

a. holes b. free electrons c. Protons d. Positron

3) The output of an OR gate would be 0-when:

a. Both of its inputs are 0
b. One of its two inputs is zero
c. Both of its inputs are I
d. Any one of its two inputs is I.

4) The output of an AND gate is only 1 when:

a. Both of its inputs are 0
b. Any one of the two inputs is 0
c. Both of its inputs are I
d. Anyone of the two

5) The two inputs of a NAND gate are A and B. Its output would be 0 when:

a. A=I.B=I
b. A=0.B=0
c. A=I.B=0
d.A=I.B=0

6) A and B are the two inputs of a NAND gate. Its output would be 1 when:

a. A=I.B=I
b. A=0,B=I
c. A=I,B=0
d. A=0,B=0

7) The branch of applied physics in which we control the flow of electrons using diodes, transistors and other semiconductor devices in order to meet our various requirements is

a. Metaphysics
b. Mechanics
c. Electricity
d. Electronics

8) Those quantities whose values vary continuously or remains constant are called:

a. Light quantities
b. Vector quantities
c. Analogue quantities
d. Scalar quantities

9) Which is the semiconductor:

a. Iron
b. Germanium
c. Gold
d. Silver

10) Which statements not true:

a. Microphone converts sound into electric potential
b. Temperature is an analogue quantity
c. Amplifier is an analogue circuit
d. Amplifier is not an analoaue circuit

11) Which of the following is an insulator?

a. Aluminum
b. Plastic
c. Silicon
d. Copper

12) Which is not a true statement?

a. Germanium is the member of 6^{th} group of periodic table
b. Germanium has four electrons in its valence shell
c. Germanium forms covalent bond by sharing four electrons
d. Germanium crystal acts as insulator in its purest form

13) Which statement is not true about semi-conductor:

a. They are not good conductors in their purest form.
b. They are not of such practical use in this state.
c. The number of electron can be added according to our requirement
d. Hexovalent impurity is usually added in them

14) When germanium or silicon is doped with Boron or Gallium, then the number of holes is increased and we get_____ doped conductor.

a. n-type
b. p-type
c. p-ntype
d. d-type

15) Which is not true:

a. The width of its depletion region increase
b. The width of its depletion region decrease
c. the quantity ofpositive and negative ions become less
d. In this condition, the resistance ofthejunction is only a few ohms.

16) The instrument used to convert A.C voltage into D.C. is called:

a. Transformer
b. Step down transformer
c. Rectifier
d. Magnetic needles

17) Which is not the part of a transistor:

a. Base
b. Emitter
c. Collector
d. Microphone

18) If the value of Boolean variable, after NOT operation become x, then it is symbolically written as:

a. $x = A$
b. $A=x$
c. $x = I+I$
d. $x=\pi.B$

19) The electronic devices in the artificial satellites are controlled from earth stations with the help of:

a. current
c. computers
b. electrical power
d. electromagnetic waves

20) The artificial satellites orbiting earth are used in:

a. telecommunication
b. weather forecast
c. scan Earth's natural resources
d. all of them

21) A microchip equal to size of thumbnail has electronic devices about:

a. 1000
b. 500
c. 100
d. 10

22) The quantities whose values changes continuously or remains constant are called:

a. electronics
b. analogue quantities V
c. digital quantities
d. both(b)& (c)

23) Which is not an analogue quantity:

a. pressure
b. microchip
c. temperature
d. time

24) The output is an analogue of:

a. ADC
b. ACD
c. DAC
d. CDA

25) The analogue signal is converted into digital by:

a. DAC
b. computer
c. transistor
d. ADC

26) The resistance of an idea conductor is:

a. infinity
b. low
c. zero
d. high

27) Which is the best conductor:

a. gold
b. Silver
c. copper
d. aluminum

28) The substances which have infinite resistance are called:

c. semi-conductor d. none of these

29) Which one of following in not a insulator:

a. wood b. rubber
c. copper d. glass

30) Germanium and silicon belongs with periodic table:

a. 2 b. 1
c. 3 d. 4

31) At zerb Kelvin temperature semi-conductors becomes: .

a. conductor b. insulator
c. ionize d. none of these

32) The germanium of silicon becomes good conductor at:

a. ordinary temperature b. 100° C
c. 0°C d. zero Kelvin

33) In semi-conductors holes are:

a. Neutral particles b. negative charge
c. positive charge carrier d. none of these

34) Electric current In semi-conductors flow due to flow of :

a. holes b. electrons
c. both hole and electrons d. neutral paretic

35) The process which increase the current conducting properties of an element called:

a. covalent bonding b. doping
c. decreasing temp. d. increasing temp.

36) A semi-conductor in its purest form is not such a good:

a. conductor b. insulator
c. element d. metal

37) The ratio of impurity added in semi-conductor in the ratio:

a. 10^2:10^10 b. 10^5:10^20
c. 1:10^4 d. 1:10^5

38) Which type of impurity is used in making n-type semi-conductor:

a. monovalent b. trivalent
c. divalent d. pentavalent

39) Which of the following is not pentavalent:

a. phosphorous b. gallium
c. bismuth d. arsenic

40) Which of the following is not trivalent?

a. antimony b. aluminum
c. indium d. boron

41) When a trivalent impurity is added, which type of semi-conductor is formed?

a. n-type b. p-type
c. both (a) and (b) d. none of these

42) In p-type semi-conductors current flow due to flow of:

a. electrons b. protons
c. holes d. beta particles

43) In semi-conductors whenever a covalent bond breaks, it forms a:

a. electron b. hole
c. proton d. electron-hole pair

44) A neutral region between p-n junction is called:

a. potential barrier b. p-region
c. depletion region d. n-region

45) The potential barrier in case of silicon is of the order of:

a. I volt b. 0.3 volt
c. 0.5 volt d. 0.7 volt

46) The potential barrier in case of Germanium is of the order of:

a. 0.3 volt b. 0.5 volt
c. 0.7 volt d. 1 volt

47) The symbol of p-n junction is represented by:

a. P n b. P n

c. P n d. 

48) When The p part of a diode is connected with the positive terminal of battery, then the diode is said to be:

a. Forward biased b. reversed biased
c. Neutral d. none of these

49) In reversed biasing the p part of the diode is connected by the battery at:

a. positive terminal b. negative terminal
c. cathode d. earthed

50) The width of depletion region increases when diode is:

a. earthed b. forward biased
c. reversed biased d. neutral

51) In forward biasing the current passing through diode is:

a. Zero. b. minimum
c. maximum d. none of these

52) The process in which alternating current is converted into direct current is called:

a. forward biasing b. reverse biasing
c. doping d. rectification

53) The central region of a transistor is known as:

a. emitter b. collector
c depletion region d. base

54) In n-p—n transistor the emitter is made of:

a. p-type b. II—type
c. neutral d. wood

55) In transistors which of the following junction is forward biased:

a. emitter-base
b. emitter-collector
c. base-collector
d. none oi these

56) The equation of transistor is:

a. $I_c=I_B+I_E$ b. $I_B=I_E+I_C$ c. $I_C=I_E+I_B$ d. $I_E=I_B+I_C$

57) The Boolean formula for AND gate is:

a. x=A+B b. x=A.B
c. x=KB d. x=A.B

58) The output of which gate is at '0' when both 01' its inputs are at '0':

a. OR gate b. AND gate
c. NOT gate d. both a and b

a. OR
b. AND
c. NOT
d. NAND

60) x = A + B is the Boolean formula for the gate:

a. OR
b. AND
c. NOT
d. NAND

ANSWERS

No	Answer	No	Answer	No	Answer	No	Answer
1	C	2	B	3	A	4	C
5	C	6	D	7	D	8	C
9	B	10	D	11	B	12	A
13	D	14	B	15	A	16	C
17	D	18	A	19	D	20	D
21	A	22	B	23	B	24	C
25	D	26	C	27	A	28	B
29	C	30	D	31	B	32	A
33	C	34	C	35	B	36	A
37	C	38	B	39	B	40	A
41	B	42	C	43	D	44	C
45	D	46	A	47	B	48	A
49	B	50	C	51	C	52	D
53	D	54	B	55	A	56	D
57	B	58	D	59	C	60	A