OBJECTIVE QUESTIONS

S.No.	Question	Option 1	Option 2	Option 3	Option 4	Answer (1/2/3/4)
1.	How many junction/s do a diode consist?	0	1	2	3	2
2.	If the positive terminal of the battery is connected to the anode of the diode, then it is known as	Forward biased	Reverse biased	Equilibrium	Schottky barrier	1
3.	A reversed-biased PN junction has	Almost zero current	A very narrow depletion layer	A net hole current	A net electron current	1
4.	Zener diodes are also known as	Forward bias diode	Reverse bias diode	Breakdown diode	None of the mentioned	3
5.	In Zener diode, the breakdown is due to Zener, has a doping	Lowest	Moderate	High	None of the above	3
6.	Depletion region contains	Free holes	Free electrons	Immobile charge carriers	None of the above	3
7.	A Zener diode that has very narrow depletion layer will breakdown by mechanism	Avalanche	Zener	Both avalanche and Zener	none of the above	2
8.	The load voltage is approximately constant when a Zener diode is	forward biased	unbiased	reverse biased	operating in the breakdown region	4
9.	Which of the following are the charge carriers available in BJT?	Holes	Electrons	Neutrons	Both a and b	4
10.	Identify the main function of a BJT?	Acts as amplifier	Acts as switch	Acts as a rectifier	Both a and b	4
11.	Identify the availability configuration of BJT?	PNP	NPN	PNPN	Both a and b	4
12.	Which of the following are majority charge carriers in NPN BJT?	Holes	Electrons	Neutrons	Protons	2
13.	How many terminals do a BJT have?	1	2	3	4	3
14.	In NPN BJT transistor which of the following terminal defines P-type?	Base	Collector	Emitter	Drain	1
15.	Which of the following terminals of BJT are slightly doped?	Base	Collector	Emitter	Drain	1
16.	Which of the following terminals of BJT is extremely thin?	Base	Collector	Emitter	Drain	1
17.	Which of the following represents arrow in BJT symbol?	Indication of voltage	Flow of resistance	Direction of current	None of the above	3
18.	A BJT operates in __ number of regions?	1	2	3	4	3
19.	In which of the following region do BJT operates in forward bias?	Active	Cut-off	saturation	Both a and c	4

20.	Which of the following BJT region does amplification?	Active	Cut-off	saturation	Both a and c	1
21.	How many diodes are used in a full wave bridge rectifier?	9	1	3	4	4
22.	Which among the following has a high ripple factor?	Half wave rectifier	Full wave rectifier	Both a and b	None of the above	1
23.	The basic purpose of a filter is to	Minimize variations in a.c. signal.	Suppress harmonics in rectified output	Remove ripples from output	None of the above	3
24.	What rectifier does?	converting DC to AC	converting AC to DC	Both a and b	None of the above	2
25.	The _____ stores the electric charges.	Transformer	Capacitor	resistor	None of the above	2
26.	The current flow is _____ in diodes?	Uni-directional	Bi-directional	Multi-directional	Both a and b	1
27.	Which device acts as Rectifier?	Resistor	Capacitor	Inductor	Diode	4
28.	A Zener diode utilizes characteristic for voltage regulation	forward	reverse	both forward and reverse	none of the above	2
29.	The load voltage is approximately constant when a Zener diode is	forward biased	unbiased	reverse biased	operating in the breakdown region	4
30.	A Zener regulator ___ in the power supply.	increases the ripple	decreases the ripple	neither increases nor decreases ripple	data insufficient	2
31.	What can be used as a filter in Half wave Rectifiers?	Inductor	Capacitor	resistor	None of the above	2
32.	In the initial stages of a multistage amplifier, we use	RC coupling	Transformer coupling	Direct coupling	None of the above	1
33.	What is the full form of PA system in audio devices?	Public address	Phase action	Power action	Public action	1
34.	To which stage is the output of microphone fed in PA system?	Voltage amplifier	Loudspeaker	Power amplifier	Mixer	4
35.	Which of the following convert electrical signals into pressure variations resulting in sound waves in PA system?	Mixer	Microphone	Loudspeaker	Driver	3
36.	The intensity of sound increases with the distance in PA system.	True	False			2
37.	What is the purpose of RC or transformer coupling?	To block a.c.	To separate bias of one stage from another	Increase thermal stability	Increase Efficiency	2

38.	Why is RC coupling confined to low power applications?	Due to large value of coupling capacitor	Low efficiency	Large number of components	Due to is frequency response	2
39.	The code where all successive numbers differ from their preceding number by single bit is	Alphanumeric Code	BCD	Excess-3	Gray	4
40.	The NOR gate output will be high if the two inputs are _____	00	01	10	11	1
41.	Which of the following is a universal logic gate?	OR	AND	NAND	XOR	3
42.	A full adder logic circuit will have _____	Two inputs and one output	Three inputs and three outputs	Two inputs and two outputs	Three inputs and two outputs	4
43.	Which of the following is not a logic gate?	OR	AND	IF	NOT	3
44.	Which of the following gates can function on a single input?	OR	AND	NAND	NOT	4
45.	What combination is a NAND gate?	NOT AND	NOT OR	NOT NOT	None of these	1
46.	In Boolean algebra, the bar sign (-) indicates ……..	OR	AND	NOT	None of these	3
47.	The inputs of a NAND gate are connected together. The resulting circuit is …….	OR	AND	NOT	None of these	3
48.	According to boolean law: A + 1 = ?	1	A	0	None of these	1
49.	De Morgan's theorem states that_____	(AB)' = A' + B'	(A + B)' = A' * B	A' + B' = A'B'	(AB)' = A' + B	1
50.	The truth table for an S-R flip-flop has how many VALID entries?	1	2	3	4	3
51.	When both inputs of a J-K flip-flop cycle are high , the output will	Be invalid	Change	No Change	Toggle	4
52.	The logic circuits whose outputs at any instant of time depends only on the present input but also on the past outputs are called	Combinational	Sequential	Latches	None of these	2
53.	When both set and reset are disabled in S-R flip flop then the output will be _____	Set	Reset	No Change	Indeterminate	3
54.	The flip flops works with _____	Binary inputs	Clock signal	Both a and b	None of the above	3
55.	The octal equivalent of the decimal number $(417)_{10}$ is _____	$(641)_8$	$(681)_8$	$(640)_8$	$(541)_8$	1
56.	Convert the hexadecimal number (1E2)16 to decimal.	481	482	483	484	2
57.	Which number system has a base 16	Octal	Hexadecimal	Decimal	Binary	2
58.	Why do we require hamming codes?	Error correction	Encryption only	Decryption	Bit stuffing	1