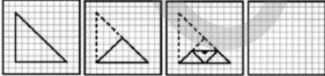
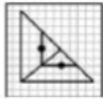
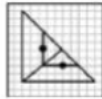


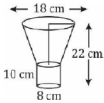
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Test Name	MT (INSTRUMENTATION)
Total Marks	91
Percentage	60.67%
Maximum Marks	150
Start Date	18-Feb-2021 03:00:11 pm
End Date	28-Apr-2021 05:03:30 pm

S. No.	Question Text	Correct Answer	Candidate Answer	Status
1.	Nephron is related to which of the following system of human body?	Excretory system(b)	Circulatory system(a)	
2.	Three friends A, B and C started a business by investing amount in the ratio of 5 : 7 : 6 respectively. After a period of six month C withdrew half of the amount invested by him. If the amount invested by A is Rs. 40,000 and the total profit earned at the end of one year is Rs. 33,000, what is C's share in profit?	9000(c)	9000(c)	
3.	Veer Kunwar Singh Jayanti is celebrated in _____ in order to recognise the achievements of Kunwar Singh during the Indian rebellion of 1857.	Biha(b)	Himachal Pradesh(d)	
4.	Directions: Read each sentence to find out whether there is any grammatical error or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of the part is the answer. If there is no error, the answer is 5. (Ignore errors of punctuation, if any.) Martin would attempt (1) / to open the umbrella (2) / when he r spectacles slipped off (3) / and fell down (4) /. No error (5).	1(a)	1(a)	
5.	2 litre of pure alcohol is added to 6 litre, 40% alcohol solution. The percentage of water in the solution is _____.	45%(b)	45%(b)	
6.	What does 'P' stands for in PFRDA?	Pension(a)	Provident(b)	
7.	In the following question, out of the four alternatives, select the word similar in meaning to the word given. To reproach	To admonish(d)	To commend(a)	
8.	If $(8x^3 - 27y^3) \div (2x - 3y) = (Ax^2 + Bxy + Cy^2)$, then the value of (2A+B-C) is:	5(c)	5(c)	

9.	An economic system combining private and state enterprise is called as _____	Mixed economy (d)	Mixed economy (d)	✓
10.	Which Article provides for 'Abolition of Titles'?	Article 18(c)	Article 17(a)	✗
11.	P is the father of Q and the grandfather of R, who is the brother of S. S's mother, T, is married to V. T is the sister of Q. How is V related to P?	Son-in-law(c)	Son-in-law(c)	✓
12.	The Nanda Devi Peak is located in _____.	Uttarakhand(b)	Uttarakhand(b)	✓
13.	In each of the questions, four alternatives are given for the Idiom/Phrase. Choose the alternative which best expresses the meaning of the Idiom/Phrase and click the button corresponding to it. Carry the ball	Be in charge(b)	Be in charge(b)	✓
14.	In the following question, a sentence has been given in Active/Passive voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active voice. The maid vacuums and dust the house every day.	Every day the house is vacuumed and dusted by the maid.(a)	Every day the house is vacuumed and dusted by the maid.(a)	✓
15.	Rearrange the parts to form a meaningful sentence: I read an advertisement that said : (A) posh, air-conditioned (B) gentleman of taste (C) are available for (D) fully furnished rooms.	ADCB(b)	ADCB(b)	✓
16.	In the following question, select the related word from the given alternatives. India : Tiger :: Pakistan : ?	Markho(b)	Horse(c)	✗
17.	In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select "no improvement". All (was surprising) to find that he was not with them.	were surprised (b)	was surprised(a)	✗
18.	In which market form, a market or an industry is dominated by a single seller?	Monopoly(b)	Monopoly(b)	✓
19.	The sum of four numbers is 64. If you add 3 to first number, 3 is subtracted from the second number, the third is multiplied by 3 and the fourth is divided by 3, then all the results become equal. What is the difference between the largest and the smallest of the original numbers?	32(a)	32(a)	✓
20.	What is the value of $[\sin (y - z) + \sin (y + z) + 2 \sin y] / [\sin (x - z) + \sin (x + z) + 2 \sin x]$?	$(\sin y) / (\sin x)$ (b)	$(\sin y) / (\sin x)$ (b)	✓
21.	The lower window of a house is at a height of 2m above the ground and its upper window is 4m vertically above the lower window. At certain instant the angles of elevation of a balloon from these windows are observed to be 60° and 30° respectively. Find the height of the balloon above the ground.	8m(b)	8m(b)	✓

22.	Pipes A and B can fill a tank in one hour and two hours respectively while pipe C can empty the filled tank in one hour and fifteen minutes. A and C are turned on together at 9 a.m. After 2 hours, only A is closed and B is turned on. When will the tank be emptied?	12:20 p.m.(d)	12:20 p.m.(d)	✓
23.	DNA is stored majorly in _____ of the cell.	nucleus(a)	cytoplasm(c)	✗
24.	The BadamiChalukyas first had their capital at ____ before they moved it to Badami.	Aihole(b)	Aihole(b)	✓
25.	In ΔABC , the bisectors of $\angle B$ and $\angle C$ meet at point O inside the triangle. If $\angle BOC = 122^\circ$, what will be the measure of $\angle A$?	64°	64° (b)	✓
26.	Who was appointed as the CEO of YES Bank in 2020?	Prashant Kuma (a)	Sunil Mehta(d)	✗
27.	For the following questions Find the odd word/letters/number from the given alternatives.	RTP(b)	RTP(b)	✓
28.	which number will replace the question mark (?) in the following series? 2, 8, 20, 24, 200, 72, 2000, ?	216(b)	216(b)	✓
29.	Select the word which means the same as the group of words given. A student who idly or without excuse absents himself/herself from school	truant(c)	vagrant(d)	✗
30.	Who was the fifth of the ten Sikh gurus?	Guru ArjanDev (c)	Guru Ramdas(b)	✗
31.	The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of sentences to form a coherent paragraph. The space in front of the large X-hut was empty, but Y-placed several stools Z-before it were	XZY(b)	XZY(b)	✓
32.	A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened. 		 (b)	✓
33.	If 120 is reduced by x%, the same result will be obtained if 40 is increased by x%. Then x% of 210 will be what percentage less than (x + 20)% of 180?	$16\frac{2}{3}$	$16\frac{2}{3}$ (b)	✓
34.	Water is flowing at the rate of 5 km/hr through a pipe of diameter 14 cm into a rectangular tank which is 50 m long and 44 m wide. Determine the time in which the level of water in the	2.0 h(b)	2.0 h(b)	✓

tank will rise by 7 cm (taken = 22/7).

35.	select the set in which the numbers are related in the same way as are the numbers of the following set. (9, 41, 40)	(8, 17, 15)(c)	(8, 17, 15)(c)	✓
36.	If the 8-digit number 2074x4y2 is divisible by 88, then the value of (4x + 3y) is:	45(d)	45(d)	✓
37.	Which river passes through maximum number of countries?	Danube(b)	Amazon(c)	✗
38.	In each of the questions, four alternatives are given for the Idiom/Phrase. Choose the alternative which best expresses the meaning of the Idiom/Phrase and click the button corresponding to it. Turned down	Reject(c)	Reject(c)	✓
39.	Which additive used in breads was banned for being carcinogenic?	Potassium Bromate(c)	Sodium Bisulphate(a)	✗
40.	An oil funnel made of tin sheet consists of a 10 cm long cylindrical portion attached to a frustum of a cone. If the total height is 22 cm, diameter of the cylindrical portion is 8 cm and the diameter of the top of the funnel is 18 cm, find the area of the tin sheet required to make a funnel. 	782.57 cm ²	728.57 cm ² (a)	✗
41.	AB is a vertical pole with end B on the ground and C is middle-point of AB. P is a point on the ground level. The portion AC subtends an angle β at P. If BP = nAB, then the value of tan β is	$\frac{n}{2n^2+1}$	$\frac{n}{2n^2+1}$ (c)	✓
42.	In the following question, correct the equation by interchanging two signs. 18 ÷ 3 + 9 - 6 × 3 = 15	+ and -(b)	+ and -(b)	✓
43.	$\frac{\sin \theta - \cos \theta + 1}{\sin \theta + \cos \theta - 1} = ?$	Sec θ + tan θ (c)	Sec θ + tan θ (c)	✓
44.	Select the set in which the numbers are related in the same way as are the numbers of the following set. (5, 24, 7)	(8, 80, 12)(a)	(12, 44, 8)(b)	✗
45.	If P denotes ÷, Q denotes ×, R denotes + and S denotes - then what is the value of 18Q12P4R5S6	53(b)	53(b)	✓
46.	Each question consist of two words which have a certain relationship to each other followed by four pairs of related words, Select the pair which has the same relationship.	worldly : wise(b)	worldly : wise(b)	✓
47.	Read the given statement and conclusions carefully. Assuming that the information given in the statement is true, even if it appears to be at variance with commonly known facts, deci	Only conclusion 1 follow.(c)	Both conclusions follow.(a)	✗

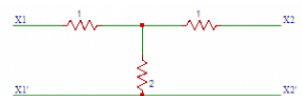
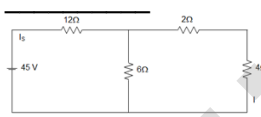
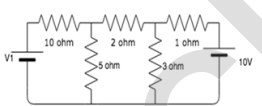
de which of the given conclusion logically follows from the statement.


Statement:

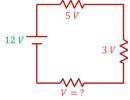
Most of the students usually fail to apply in practice what they studied on their courses in school and colleges because they studied the course just so they could pass the examination.

CONCLUSION:

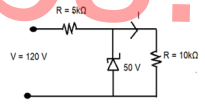
1. Most of the students are just trying to pass the examination.
2. There is less emphasis on learning by teachers.

48.	Eris was known for _____ both mortals and immortals.	creating conflict amongst(b)	creating conflict amongst(b)	✓
49.	Each goddess tried _____ to bribe Paris.	boldly(a)	boldly(a)	✓
50.	Athena _____ Hera, promising Paris victory and fame in war.	disregarded the statement of(a)	disregarded the statement of(a)	✓
51.	The expression for bandwidth BW of a PCM system, where v is the number of bits per sample and f_m is the modulating frequency, is given by	$BW > = v f_m$	$BW > = 2 v f_m$ (d)	✗
52.	Which of the factor does not affect ionic mobility?	Pressure(b)	Pressure(b)	✓
53.	The spring material used in a spring control device should have the which property?	All of these(d)	All of these(d)	✓
54.	 <p>In the circuit shown below, find the Z-parameter Z_{11}.</p>	3(c)	3(c)	✓
55.	<p>In the circuit given above, the current in the 4-ohm resistor is</p> 	1.5 A(d)	1.5 A(d)	✓
56.	 <p>Find the value of V_1 if the current through the 1 ohm resistor = 0A.</p>	83.33V(c)	87.87V(b)	✗
57.	The output of a JK flipflop with asynchronous preset and clear inputs is '1'. The output can be changed to '0' with one of the following conditions	By applying $J = 1, K = 1$ and using the clock(d)	By applying $J = 0, K = 0$ and using a clock(a)	✗
58.	Two ammeters A and B both 0-10 A have internal resistance of 1Ω and 0.5Ω respectively. They are connected in parallel. If total current is 15 A, then	$I_A = 5 A, I_B = 10 A$ (b)	$I_A = 5 A, I_B = 10 A$ (b)	✓

59.	In a circuit the load current is 5 mA and the unregulated output is 10 V. If the voltage drop across the Zener diode is 3 V, what should be the value of resistance?	150 Ω(c)	150 Ω(c)	✓
60.	Consider an electron, a neutron and a proton initially at rest and placed along a straight line such that the neutron is exactly at the center of the line joining the electron and proton. At t=0, the particles are released but are constrained to move along the same straight line. Which of these will collide first?	electron and neutron(d)	electron and neutron(d)	✓
61.	Which is a practical application of thermistors?	All of these(d)	All of these(d)	✓
62.	The Nernst equation is given by which statement?	$E = E_0 + 2.303 RT / F \log CH$	$E = E_0 - 2.303 RT / F \log CH$ (a)	✗
63.	Identify the one which states DeMorgan's theorem	$(AB)' = A' + B'$ (a)	$(AB)' = A' + B'$ (a)	✓
64.	A linear system at rest is subject to an input signal $r(t) = 1 - e^{-t}$. The response of the system for $t > 0$ is given by $c(t) = 1 - e^{-2t}$. The transfer function of the system is:	$2(s+1)/(s+2)$ (c)	$(s+1)/(s+2)$ (b)	✗
65.	Which instrument measures the total quantity of electricity delivered at a particular time?	Integrating(c)	Integrating(c)	✓
66.	The circuit having some properties in either direction is known ascircuit	Bilateral(c)	Bilateral(c)	✓
67.	In nodal analysis, if there are N nodes in the circuit then how many equations will be written to solve the network?	N - 1(c)	N - 1(c)	✓
68.	Why Nonlinear system cannot be analysed by Laplace transform?	It has no zero initial conditions(c)	All of these(d)	✗
69.	What is the potential transformer?	transformer used with an A.C. voltmeter(d)	transformer used with an A.C. voltmeter(d)	✓
70.	Which is a universal logic gate?	NAND(a)	NAND(a)	✓
71.	 <p>With 10 V dc connected at port A in the linear nonreciprocal two-port network shown above, the following were observed: (i) 1Ω connected at port B draws a current of 3 A (ii) 2.5Ω connected at port B draws a current of 2 A For the same network, with 6 V dc connected at port A, 1Ω connected at port B draws 7/3 A. If 8 V dc is connected to port A, the open circuit voltage at port B is</p>	8 V(b)	6 V(c)	✗

72.	If the quantity to be measured remains constant during the process of taking the repeated measurements then the random errors can be eliminated by _____	Either (a) or (b)(d)	Either (a) or (b)(d)	✓
73.	The boolean function $A + BC$ is a reduced form of _____	$(A + B)(A + C)(c)$	$(A + B)(A + C)(c)$	✓
74.	What can a potentiometer be used for?	All of these(d)	All of these(d)	✓
75.	The primary of a transformer is connected to a 6 V battery. The turns ratio is 1 : 3 and the secondary load, R_L , is 100 Ω . The voltage across the load is _____	0 V(d)	0 V(d)	✓
76.	What is the full form of NPSH in a pump?	Net positive suction head(b)	Net pressure suction head(a)	✗
77.	"Total electric flux through any closed surface is equal to the charge enclosed by that surface divided by permittivity". This is the statement for?	Gauss law(d)	Gauss law(d)	✓
78.	Which device may be used for extending the range of the instruments?	All of these(d)	All of these(d)	✓
79.	The resistance of a dc galvanometer is 20 Ω . A current of 10 mA causes full scale deflection. To convert it into 0-300 V voltmeter, we have to use a series resistance of _____	29980 Ω (c)	29980 Ω (c)	✓
80.	Electric field intensity is _____	Directly proportional to the force applied(a)	Inversely proportional to the charge(c)	✗
81.	Silver is electrodeposited on a metallic vessel of surface area 800 cm ² by passing a current of 0.2 A for 3 hours. The thickness of silver deposited is _____	0.02 mm(d)	0.05 mm(b)	✗
82.	In RC phase shift oscillator, one R-C bridge provides _____ phase shift.	60°	90° (b)	✗
83.	What is the function of low pass filter in phase-locked loop?	Removes high frequency noise (a)	Removes high frequency noise (a)	✓
84.	 <p>In above circuit voltage V is:</p>	4 V(c)	4 V(c)	✓
85.	Which pump is the most efficient centrifugal pump?	Reciprocating pump(a)	Electrical pump (b)	✗
86.	What will happen for resistivity metal and semiconductor if the temperature is increased?	For metal increases and for semiconductor decreases(d)	For metal increases and for semiconductor decreases(d)	✓

87.



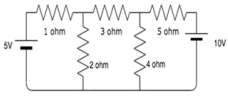
In the circuit, what is the output voltage?

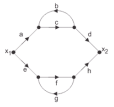
50 V(d)

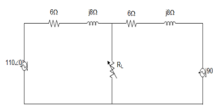
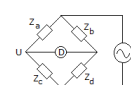
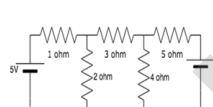
50 V(d)




88.	The sequence of operations in which PCM is done is	Sampling, quantizing, encoding(c)	Quantizing, sampling, encoding(a)	✗
89.	The PWM control of DC motor varies _____	Linearly with speed(c)	Inversely with speed(a)	✗
90.	Calibration of instrument is an important consideration in measurement system. The errors due to instruments being out of calibration can be rectified by	Increasing the frequency of recalibration(d)	Increasing the susceptibility of measuring instrument(b)	✗
91.	A coil of diameter 0.2 cm is formed by a 6.28 m long wire and a current of 1 amp is passed in it. The magnetic induction at its centre will be	$6.28 \times 10^{-5} \text{ T}$	$6.28 \times 10^{-5} \text{ T}$ (c)	✓
92.	Find out the resolution of 8 bit DAC/ADC?	256(c)	256(c)	✓
93.	Constant voltage source is _____	active and unilateral(a)	active and unilateral(a)	✓
94.	Armature voltage control works for speeds _____ base speed and field resistance control works well for speed _____ base speed.	below, above(a)	above, below(b)	✗
95.	What is the frequency of rotor current in an induction motor ?	slip times the frequency of supply (a)	slip times the frequency of supply (a)	✓
96.	Transient response in the system is basically due to	Stored energy(c)	Stored energy(c)	✓
97.	In the output characteristics of a MOSFET with low values of V_{ds} , what will be the value of the on-state resistance ?	V_{ds}/I_d (c)	0(b)	✗
98.	<p>Use mason's gain formula to find the transfer function of the given signal flow graph:</p>	$\frac{abdeg}{1-(bc+ef)+bcef}$ (c)	$\frac{abdeg}{1-(bc+ef)+bcef}$ (c)	✓
99.	Assertion (A): Strain measurement using strain gauge invariably requires a dummy strain gauge. Reason (R): The resistance of strain gauge depends on temperature.	Both A and R are true and R is correct explanation of A(c)	Both A and R are true but R is not correct explanation of A(a)	✗
100.	The current in a circuit is measured using a 150 : 1 CT If the ammeter reads 0.6 A, the circuit current is	90 A(a)	90 A(a)	✓

101.	What is the tubes of force within the magnetic material known as?	Lines of force(a)	Electric flux(c)	✗
102.	What is the resultant flux in an induction motor equal to ?	1.5 times the maximum value of flux due to any phase(c)	1.5 times the maximum value of flux due to any phase(c)	✓
103.	Slip of an induction motor increases with	increase in current and torque(a)	decrease in current and increase in torque(c)	✗
104.	Of the options mentioned identify the one with which Magnetomotive force is equal to.	current * number of turns(b)	current * number of turns(b)	✓
105.	How systematic errors are eliminated?	Replacement of instrument(b)	Frequent measurement(a)	✗
106.	In a Wien-bridge oscillator for obtaining 160Hz frequency output what will be the capacitor value if resistance is selected as 1KΩ?	1 μF(b)	1 μF(b)	✓
107.	If a shunt of 200 Ω resistance is used with a galvanometer of 1000 Ω resistance, what will be the multiplying power ?	6(a)	6(a)	✓
108.	Which, among the following, is the correct expression for electric flux density?	$D = \epsilon \cdot E$ (a)	$D = \epsilon \cdot E$ (a)	✓
109.	Find the Nyquist rate and Nyquist interval of $\sin(2\pi t)$.	2 Hz, 1/2 sec(d)	2 Hz, $\frac{1}{2}$ sec(d)	✓
110.	What will happen to resistance, if the length of the conductor is increased?	Increases(d)	Increases(d)	✓
111.	For which of these materials the net magnetic moment should be zero?	Antiferromagnetic materials(d)	Antiferromagnetic materials(d)	✓
112.	Consider the following statements Thermistor is more sensitive than platinum resistance thermometer The resistance of thermistor is solely a function of its absolute temperature whether the source of heat is external or internal Thermistor has linear temperature-resistance relationship Thermistor has linear negative temperature coefficient Of the Statements, the correct statements are	1, 2 and 4(a)	1 and 2(b)	✗
113.	 <p>Find the value of the currents I1, I2 and I3 flowing clockwise in the first, second and third mesh respectively</p>	1.54A, -0.189A, -1.195A(d)	4.33A, 0.55A, 6.02A(c)	✗
114.	Find the Lorentz force of a charge 2.5C having an electric field of 5 units and magnetic field of 7.25 units with a velocity 1.5m/s.	39.68(b)	68.39(a)	✗

115.	Find the resolution of a 10-bit AD converter for an input range of 10v?	9.77mv(d)	97.7mv(a)	✗
116.	Vibrating reeds are used in which instrument ?	Frequency factor mete(c)	Wattmeter(b)	✗
117.	When a bar magnet is broken into two pieces, which of the following are true?	The magnet turns into two new bar magnets(c)	The magnet turns into two new bar magnets(c)	✓
118.	Permeability in a magnetic circuit corresponds toin an electric circuit	Conductivity(d)	Resistance(a)	✗
119.	A MOSFET is sometimes called JFET	Insulated gate(b)	Insulated gate(b)	✓
120.	The current passing through a circuit is 7.2A and the power at the terminals is 27 watts. Existence is _____ ohms.	0.5208(c)	0.5208(c)	✓
121.	 <p>Use mason's gain formula to find the transfer function of the above signal flow graph:</p>	acdfg+bcefg/1-cd-fg-cdfg(a)	abef+bcd/1-cd-fg-cdfg(b)	✗
122.	Find the maximum force of the conductor having length 60cm, current 2.75A and flux density of 9 units.	14.85(c)	14.85(c)	✓
123.	When two wires of different material are joined together at either end, forming two junctions which are maintained at a different temperature, a thermo-motive force is generated causing a current to flow around the circuit. This arrangement is called _____	Thermocouple(c)	Thermocouple(c)	✓
124.	Delay element in delta modulation acts as	First order predictor(b)	First order predictor(b)	✓
125.	A control system whose step response is $-0.5(1+e^{-2t})$ is cascaded to another control block whose impulse response is e^{-t} . What is the transfer function of the cascaded combination?	$1/(s+2)(s+1)$	$1/(s+1)s$ (b)	✗
126.	Starting position of an object is represented as $x=5.1\pm 0.2m$ and finishing position as $y=6.9\pm 0.3m$. What will be the displacement and error in displacement?	Displacement = 1.8m, Error = 0.36m(b)	Displacement = 1.8m, Error = 0.36m(b)	✓
127.	A periodic signal is	All of these(d)	All of these(d)	✓
128.	At which state the phase-locked loop tracks any change in input frequency?	Phase locked state(b)	Phase locked state(b)	✓
129.	For a voltage source	Terminal voltage cannot exceed source e.m.f.(c)	Terminal voltage cannot exceed source e.m.f.(c)	✓

130.	Find the Nyquist rate and Nyquist interval for the signal $f(t) = 1 + \text{sinc}300\pi t$	300 Hz, 3.3 msec c(b)	300 Hz, 3.3 msec c(b)	<input checked="" type="checkbox"/>
131.	 <p>In the circuit given above, the maximum power absorbed by the load resistance R_L is _____</p>	621 W(d)	1000 W(c)	<input type="checkbox"/>
132.	If 25 W of power are applied to the primary of an ideal transformer with a turns ratio of 10, the power delivered to the secondary load is	25 W(d)	25 W(d)	<input checked="" type="checkbox"/>
133.	A wire of length L carrying current I is bent into a circle of one turn. The field at the centre of the coil is B_1 . A similar wire of length L carrying current I is bent into a square of one turn. The field at its centre is B_2 . Then	$B_2 > B_1$ (a)	$B_1 = B_2$ (c)	<input type="checkbox"/>
134.	 <p>In the above figure, $Z_a = 100 \angle 50^\circ$, $Z_b = 300 \angle -90^\circ$ and $Z_c = 200 \angle 0^\circ$. For balanced condition, Z_d will be</p>	$600 \angle -140^\circ$ (d)	$600 \angle -140^\circ$ (d)	<input checked="" type="checkbox"/>
135.	If a transformer has 50 turns in the primary winding and 10 turns in the secondary winding, what is the reflective resistance if the secondary load resistance is 250 Ω ?	6,250 Ω	25 Ω (b)	<input type="checkbox"/>
136.	Kirchhoff's laws are not applicable to circuits with	Distributed parameters(d)	Distributed parameters(d)	<input checked="" type="checkbox"/>
137.	Which is the formula for pH calculation?	$-\log_{10}[H^+]$ (b)	$\log_{10}[H^+]$ (a)	<input type="checkbox"/>
138.	A transfer function has two zeroes at infinity. Then the relation between the numerator(N) and the denominator degree(M) of the transfer function is:	$N=M-2$ (c)	$N=M-2$ (c)	<input checked="" type="checkbox"/>
139.	 <p>Find the value of V if the current in the 3 ohm resistor=0.</p>	7.5V(d)	6.5V(b)	<input type="checkbox"/>
140.	The transducers that converts the input signal into the output signal, which is a discrete function of time is known as _____ transducer.	Digital(c)	Digital(c)	<input checked="" type="checkbox"/>
141.	Which is correct for tactile sensors?	Touch sensitive (d)	Input voltage sensitive(b)	<input type="checkbox"/>
142.	A Hall effect transducer has $K_H = -1 \times 10^{-8}$. If $B = 1 \text{ Wb/m}^2$, $I = 3 \text{ A}$ and bismuth slab is 2 mm wide, the Hall voltage is	-15×10^{-6}	$-20 \times 10^{-4} \text{ V}$ (c)	<input type="checkbox"/>
143.	Which of the following instruments can be used for dc as well as ac upto a few MHz? 1.Moving iron instrument	2 only(d)	2 and 4 only(b)	<input type="checkbox"/>

2. Thermocouple instrument
3. Induction instrument
4. Moving coil instrument
Select the correct answer as per codes

144.	$I_3 = \alpha v_x$. This is 	Current control voltage source(b)	Voltage control current source(c)	<input checked="" type="radio"/>
145.	Two small diameter 10gm dielectric balls can slide freely on a vertical channel. Each carry a negative charge of $1\mu\text{C}$. Find the separation between the balls if the lower ball is restrained from moving.	0.3(b)	0.2(c)	<input checked="" type="radio"/>
146.	The Inverse Fourier Transform of $u(\omega)$ is	$(1/2) \delta(t) + 1/\pi t$ (c)	$\delta(t) + \text{sgn}(t)$ (b)	<input checked="" type="radio"/>
147.	A metal with temperature coefficient of resistance has a value 200, its initial resistance is given by 40Ω . For an increase in 300C to 350C what will be the final resistance value?	$40\text{K}\Omega$ (a)	$4\text{K}\Omega$ (c)	<input checked="" type="radio"/>
148.	Sine wave is a	Periodic signal(a)	Both a and c(d)	<input checked="" type="radio"/>
149.	The Fourier transform of $u(t)$ is $B(j\omega)$ & the Laplace transform of $u(t)$ is $A(s)$, then which of the following equation is satisfied	$A(s) = 1/s$ but $B(j\omega) \neq 1/j\omega$ (c)	$A(s) \neq 1/s$ but $B(j\omega) = 1/j\omega$ (b)	<input checked="" type="radio"/>
150.	A moving coil meter has 10Ω resistance and requires 40mA for full scale deflection. The shunt resistance required to convert it into $0-2\text{A}$ ammeter is	0.2041Ω (c)	0.2041Ω (c)	<input checked="" type="radio"/>
<input checked="" type="radio"/> Incorrect Question	<input checked="" type="radio"/> Correct Question	<input type="radio"/> Left Question		

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