

No.Admn/AM(E)/Rectt/2026

Date: 12.05.2026

NOTIFICATION

Subject: Invitation for representation(s), if any, on the Questions and the Answer Keys of the written test, held for the post of Associate Manager (Electrical)

With reference to Advt. No. Admn/Rectt/2026/09 dated 18 Feb 2026 for the position of Associate Manager (Electrical).

Please find below the **Question** (Annexure-I) and the **Answer Keys** (Annexure-II) of the Written Test for the post of position of Associate Manager (Electrical) held on 11.05.2026.

Representation(s), if any, is/are invited from the candidates regarding the correctness of the answer(s) to any question(s), on the email id career@iimmumbai.ac.in latest by **14.05.2026, 01:30 p.m.** To register your representation, an applicable fee of Rs 100 /- per question, has to be paid to the following account.

ACCOUNT NAME: IIM MUMBAI MISC RECEIPTS

BANK NAME : CANARA BANK

BRANCH NAME : IIT POWAI

ACCOUNT NO : 120037475430

IFSC CODE : CNRB0002724

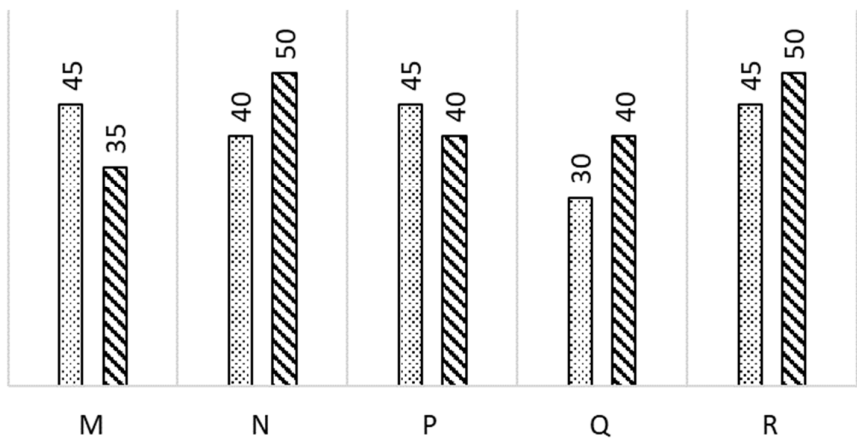
UTR information for payment has to be shared along with the representation. If your representation is found to be correct, the amount paid shall be refunded.

BY ORDER

SECTION A

1	The technique of adding a precise amount time between the trigger point and beginning of the scope sweep in a CRO is known as	
	(A) free running sweep	(B) delayed sweep
	(C) triggered sweep	(D) non-sawtooth sweep
2	The domestic load that has UPF is	
	(A) fan	(B) mixer
	(C) mixer	(D) filament lamp
3	The acceptable value of grounding resistance in domestic application is	
	(A) 100 Ω	(B) 10 Ω
	(C) 1 Ω	(D) 0.1 Ω
4	A current of 5 mA flows in a resistance less choke from a 200 V alternating source. The energy consumed in the choke is	
	(A) 0 J	(B) 4.4 J
	(C) 500 J	(D) 1000 J
5	An alternator is supplying a load of 300 kW at a power factor of 0.6 lagging. If the power factor is raised to unity, how many more kW can alternator supply?	
	(A) 100	(B) 150
	(C) 200	(D) 300
6	In a CE (common emitter) transistor, $V_{CC}=12$ V and the zero signal collector current is 1 mA. What is the operating point when collector load (R_C) is 6 k Ω ?	
	(A) 6V, 1mA	(B) 6V, 2mA
	(C) 12V, 1mA	(D) 12V, 2mA
7	Wave winding is preferred for which of the following rating?	
	(A) low current, low voltage	(B) high current, high voltage
	(C) low current, high voltage	(D) high current, low voltage
8	The conductor, by means of which the metal body of an equipment or an appliance is connected to the earth is known as	
	(A) neutral continuity connector	(B) earth continuity connector
	(C) neutral discontinuity connector	(D) earth discontinuity connector
9	The maximum demand of a consumer is 2kW and daily energy consumption is 24 units. What is the load factor?	
	(A) 24%	(B) 41.6%
	(C) 50%	(D) 80%
	The leakage resistance of a 50 km long cable is 1 M Ω . For a 100 km long cable it will be	

10	(A) 0.5 MΩ	(B) 2 MΩ
	(C) 0.66 MΩ	(D) None of these
11	By which of the following a busbar is rated?	
	(A) current only	(B) current and voltage
	(C) current, voltage and frequency	(D) current, voltage, frequency and short time current
12	A transformer cannot raise or lower the voltage of a DC supply because	
	(A) there is no need to change the DC voltage	(B) a DC circuit has more losses
	(C) Faraday's laws of electromagnetic induction are not valid in case of DC	(D) None of these
13	The inductance of a coil can be increased by	
	(A) increasing core length	(B) decreasing the number of turns
	(C) decreasing the diameter of the former	(D) choosing core material having high relative permeability
14	In induction motors, the length of air gap is kept as small as possible in order to have	
	(A) low power factor	(B) high power factor
	(C) high overload capacity	(D) Any of these
15	The power factor of industrial loads is generally	
	(A) unity	(B) leading
	(C) lagging	(D) zero
16-19	<p>Following are some details about Daniel Bernoulli (after whom Bernoulli's principle is named). Answer the questions 16-19 based on the description below:</p> <p>Daniel Bernoulli was born in Groningen, in the Netherlands, into a family of distinguished mathematicians. The Bernoulli family came originally from Antwerp, at that time in the Spanish Netherlands, but emigrated to escape the Spanish persecution of the Protestants. After a brief period in Frankfurt the family moved to Basel, in Switzerland.</p> <p>He was a contemporary and close friend of Leonhard Euler. He went to St. Petersburg in 1724 as professor of mathematics but was very unhappy there. A temporary illness together with the censorship by the Russian Orthodox Church and disagreements over his salary gave him an excuse for leaving St. Petersburg in 1733. He returned to the University of Basel, where he successively held the chairs of medicine, metaphysics, and natural philosophy until his death.</p>	
16	Daniel Bernoulli was a distant relative of Leonhard Euler.	
	(A) True	(B) False
	(C) Most likely	(D) Can't say
17	Daniel Bernoulli lived in _____ cities in his life.	
	(A) 4	(B) 5

	(C) 3	(D) 2																		
18	The most likely place from where Daniel Bernoulli published the now famous Bernoulli's principle is																			
	(A) Groningen	(B) Frankfurt																		
	(C) Basel	(D) Antwerp																		
19	Daniel Bernoulli was unhappy in St. Petersburg due to																			
	(A) censorship by the Church	(B) issues with salary																		
	(C) sickness	(D) All of these																		
20	What will be the total flux emitted by a source of 60 candle power?																			
	(A) 754 lumens	(B) 240 lumens																		
	(C) 188 lumens	(D) 60 lumens																		
21	The complex number ' $6 + j6$ ' is equivalent to																			
	(A) $6 \angle 45^\circ$	(B) $36 \angle 45^\circ$																		
	(C) $8.48 \angle 45^\circ$	(D) $8.48 \angle 90^\circ$																		
22-26	As part of a bid evaluation, the income/expenditure data (in Rs. Crore) of five contractors, M, N, P, Q and R for the year 2022 is given below. Answer questions 22-26 based on this data																			
	<p style="text-align: center;"> Expenditure Income </p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Contractor</th> <th>Expenditure (Rs. Crore)</th> <th>Income (Rs. Crore)</th> </tr> </thead> <tbody> <tr> <td>M</td> <td>45</td> <td>35</td> </tr> <tr> <td>N</td> <td>40</td> <td>50</td> </tr> <tr> <td>P</td> <td>45</td> <td>40</td> </tr> <tr> <td>Q</td> <td>30</td> <td>40</td> </tr> <tr> <td>R</td> <td>45</td> <td>50</td> </tr> </tbody> </table>		Contractor	Expenditure (Rs. Crore)	Income (Rs. Crore)	M	45	35	N	40	50	P	45	40	Q	30	40	R	45	50
Contractor	Expenditure (Rs. Crore)	Income (Rs. Crore)																		
M	45	35																		
N	40	50																		
P	45	40																		
Q	30	40																		
R	45	50																		
22	The contractor that earned the maximum percentage of profit is																			
	(A) Q	(B) N																		
	(C) M	(D) P																		
23	The number of loss-making contractors is																			
	(A) 0	(B) 1																		
	(C) 2	(D) 3																		

24	For contractor R, if the expenditure had increased by 20% in 2022 from 2021 and the company had earned profit of 10% in 2021, R's income in 2022 was approximately (in Rs. Crore)	
	(A) 41	(B) 35
	(C) 37	(D) 39
25	Contractors M and N together had a percent profit/loss of	
	(A) 12% loss	(B) 8% loss
	(C) 8% profit	(D) No profit no loss
26	What is the ratio of expenditure to income of contractors N and Q?	
	(A) 3:4 and 4:5	(B) 4:3 and 5:4
	(C) 4:5 and 3:4	(D) None of the above
27	Electric pressure is also called	
	(A) resistance	(B) voltage
	(C) power	(D) energy
28	For a symmetrical wave form, average value of one full cycle is	
	(A) 1	(B) 1.11
	(C) 2.22	(D) 0
29	When a dielectric is placed in an electric field, the field strength	
	(A) decreases	(B) increases
	(C) reduces to zero	(D) remains unchanged
30	Assertion (A): a low power factor wattmeter has special constructional features to ensure accurate measurement. Reason (R): extension of wattmeter range in DC circuit can be easily done by using current and potential transformer.	
	(A) A is false, R is true	(B) A is true, R is false
	(C) Both A and R are true, and R is the correct explanation of A	(D) Both A and R are true, and R is not the correct explanation of A
31	Out of all the two-digit integers between 1 and 100, a two-digit number is selected at random. What is the probability that the selected number is not divisible by 7?	
	(A) 13/70	(B) 12/90
	(C) 78/90	(D) 77/90
32	'A' alone can do a piece of work in 6 days and 'B' alone in 8 days. 'A' and 'B' undertook to do it for Rs. 3200. With the help of 'C', they completed the work in 3 days. How much should be paid to 'C'?	
	(A) Rs. 375	(B) Rs. 400
	(C) Rs. 600	(D) Rs. 800

33	The angle of elevation of the Sun, when the length of the shadow of a tree is $\sqrt{3}$ times the height of the tree, is	
	(A) 30°	(B) 60°
	(C) 45°	(D) 90°
34	The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?	
	(A) 10 years	(B) 8 years
	(C) 4 years	(D) None of these
35	6 bells commence ringing together at ringing intervals of 2, 4, 6, 8, 10 and 12 seconds, respectively. In a 30 minute interval, how many times do all of them ring together?	
	(A) 16	(B) 15
	(C) 10	(D) 4
36	He could not understand the judges awarding her the first prize, because he thought that her performance was quite _____.	
	(A) superb	(B) medium
	(C) mediocre	(D) average
37	I saw a _____ of cows in the field.	
	(A) group	(B) herd
	(C) swarm	(D) flock
38	Synonym of 'brief' is	
	(A) limited	(B) small
	(C) little	(D) short
39	Synonym of 'august' is	
	(A) common	(B) ridiculous
	(C) dignified	(D) a month of calendar
40	The idiom "to keep one's temper" means	
	(A) to become hungry	(B) to be in good mood
	(C) to become angry	(D) to preserve one's energy
41	Value of Performance Bank Guarantee should be _____ % of tendered value as per CPWD manual	
	(A) 2	(B) 4
	(C) 5	(D) 6
42	If total cost of a building is Rs. 200 Crore, the contingencies shall be taken as per CPWD manual as _____ of the cost.	
	(A) 2%	(B) 3%
	(C) 4%	(D) 5%

43	As per CPWD PAR 2021, the component of Third Party Quality Assurance (TPQA) should be	
	(A) 2%	(B) 1.5%
	(C) 1%	(D) 0.5%
44	As per GFR Rule 154, purchase of goods without quotation can be made up to a value of	
	(A) Rs. 15,000	(B) Rs. 20,000
	(C) Rs. 25,000	(D) Rs. 30,000
45	Engineering, Procurement and Construction (EPC) contract methodology is mandatory for construction project of value _____ or more.	
	(A) Rs. 50 Crore	(B) Rs. 100 Crore
	(C) Rs. 150 Crore	(D) Rs. 200 Crore
46	Which of the following is not a maintenance work?	
	(A) special repair work	(B) minor work that adds capital value to existing asset without creating new assets
	(C) addition/alteration work	(D) aesthetic improvement in existing asset
47	Rate of Earnest Money as per CPWD manual is	
	(A) 1% of tendered cost	(B) 2% of tendered cost
	(C) 1% of estimated cost put to tender	(D) 2% of estimated cost put to tender
48	Which of the following is not an emergent work?	
	(A) restoration of essential services in case of accident/breakdown	(B) sewer and water supply
	(C) works required for law and order	(D) None of these
49	“Every contract is an agreement, but every agreement may not be a contract.” – this statement is	
	(A) False	(B) True
	(C) Both	(D) No relation between the two
50	An industrial consumer has a daily load pattern of 2000 kW, 0.8 lag for 12 hours and 1000 kW UPF for 12 hours. The load factor is	
	(A) 0.50	(B) 0.75
	(C) 0.60	(D) 0.80

SECTION B

All Questions are Compulsory

51. You went to a vendor's factory for testing a 5 MVA transformer before commissioning it in your institute. Write a report on the test. (5 Marks)

52. It is observed that the students in a hostel are keeping the corridor lights on even during day-time, which is leading to wastage of electricity and increase in electricity bills. You are in charge of the electrical system in that hostel. Please write a note to the students to take appropriate action to reduce electricity consumption.(5 Marks)

ANNEXURE-II

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