



AEM(M) 2013-14

**FOR EVALUATOR'S USE ONLY**

Sub. Code : **57**

Optional Paper

**Electrical Engineering : Paper-I**

Time : 3 Hours / Maximum Marks : 200 / Total Pages : 32

Evaluation Table												(For Evaluator's Use Only)		
PART-A				PART-B				PART-C				Grand Total		
QN	E-1	E-2	AC	QN	E-1	E-2	AC	QN	E-1	E-2	AC	PART-A		
1				21				33				PART-B		
2				22				34				PART-C		
3				23				35				Total		
4				24				36				(-) Marks		
5				25				37				Final Total		
6				26				38				Marks in Words		
7				27				39				Remarks of Evaluator/Chief Evaluator		
8			28											
9				29										
10				30										
11				31										
12				32										
13														
14														
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16														
17														
18												Remarks of Scrutiniser		
19														
20														
Total														
Evalu ator's Sign														



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## PART - A

Marks : 40

**Note :** Attempt all the twenty questions. Each question carries 2 marks. Answer should not exceed 15 words.

1 What type of motor is used in ceiling fans ?

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2 What is piezoelectric effect ?

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3 What is the principle of superposition ?

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4 Define Potential and explain potential difference.

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5 What do you understand by the term CORONA ?

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6 What is the basic difference between circuit breaker and relay ?

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7 What is the function of a starter in a 3- $\phi$  Induction Motor ?

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8 Three phase induction motor is called a generalized transformer, why ?

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9 Why the Core flux in a transformer is almost independent of load current ?

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10 Write expression for Coulomb's law and define electric field intensity.

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11 What do you understand by passive filters ?

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12 Define %-ge slip in an Induction motor.

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13 What are energy storing elements in an electrical circuit ? Also give the medium of storage.

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14 Write the Gauss's law in differential form.

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15 Give Biot - Savart law in mathematical form.

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16 Which type of charge is carried by a donor atom in an N-type of semiconductor at normal temperature ?

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17 What material is preferred for making core of a transformer ?

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18 Name, unsymmetrical faults in a power system.

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19 Classify Hydel power plant on the basis of Head.

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20 What are the disadvantages of poor power factor ?

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Lined writing area with horizontal lines and a large watermark 'Adda247' in the center.



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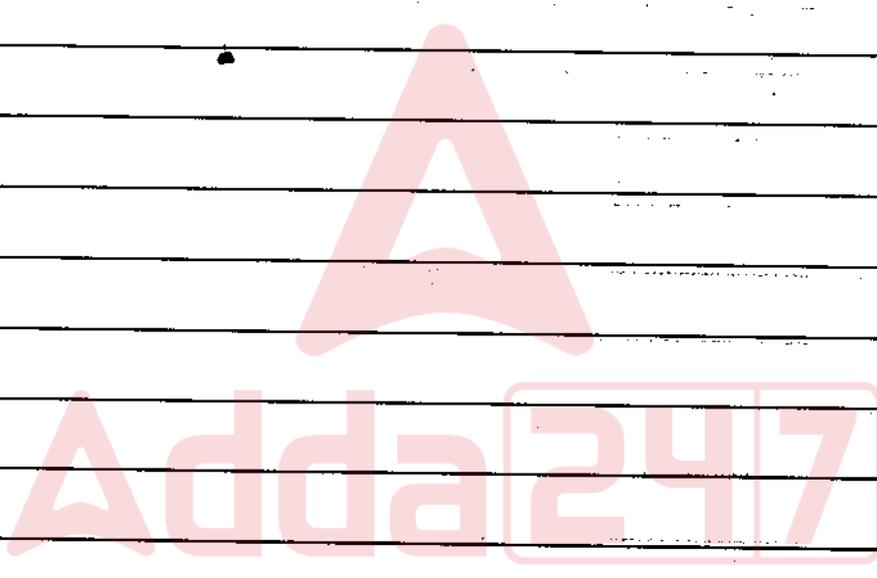
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Lined writing area with horizontal lines and a large watermark in the center.



SPACE FOR ROUGH WORK

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