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220335

**3rd Sem. / Automobile, Mech. Engg. /Mechanical
(Tools & Die Design)**

Subject : Basics of Electrical & Electronics Engineering

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Unit of Impedance is (CO2)

- a) ohm
- b) tesla
- c) hertz
- d) weber

Q.2 The power factor at resonance in ric circuit is (CO1)

- a) 0
- b) 1
- c) 2
- d) infinite

Q.3 Frequency of dc is (CO1)

- a) zero
- b) 230hz
- c) 440hz
- d) infinite

Q.4 The device which convert ac into dc is (CO1)

- a) substation
- b) stabilizer
- c) rectifier
- d) transformer

Q.5 Expand RMS value (CO2)

- a) read mean square
- b) ram mean square
- c) road mean square
- d) root mean square

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Q.6 An induction motor convert (CO5)

- a) mechanical to electronics energy
- b) electronics to mechanical
- c) electrical to mechanical
- d) mechanical to electrical

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define average value of AC. (CO1)

Q.8 What is the full form of MMF. (CO3)

Q.9 In circuit voltage is measured by _____ (CO1)

Q.10 The current which does not change its direction is known as _____ current (CO1)

Q.11 Define AC (CO1)

Q.12 Earthing is than to prevent _____ to the user. (CO2)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Explain kirchoffs current law (CO2)

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- Q.14 Explain ideal current source. Draw its vi characteristics. (CO2)
- Q.15 Distinguish between conductor insulator and semi conductor on the basis energy band diagram (CO7)
- Q.16 Draw and explain vi characteristics of PN junction diode. (CO7)
- Q.17 Diffrentiate between AC and DC (CO1)
- Q.18 List five disadvantages of low power factor (CO2)
- Q.19 Define the following and state their units (CO2)
a) Electrical energy b) Electrical power
- Q.20 Write short note of falme proof motor (CO5)
- Q.21 State the different between phase wire neutral wire earth wire (CO4)
- Q.22 Give five differences between MCB & ELCB (CO6)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Describe working of transformer with the help of suitable diagram. What are the various types of loses in transformer? (CO3)

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- Q.24 Explain the function of emitter base and collector of in operation junction transistors ? (CO7)
- Q.25 Describe construction and working principal of single phase induction motor (CO5)

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