

No. of Printed Pages : 4

Roll No.

180136/170336/

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3rd Sem./ AGRI ENGG.

**Subject : Basics of Electrical
and Electronics Engineering**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice Questions. All questions are compulsory (10x1=10)

- Q.1 Potential difference between phase and neutral in single phase system is. (CO-1)
a) 150 volt b) 320 volt
c) 440 volt d) 220 volt
- Q.2 What is the unit of Voltage? (CO-1)
a) Volt b) Amp.
c) Ohm d) Watt
- Q.3 Full form of E.M.F. is: (CO-2)
a) Electromotive force
b) Equal motive force
c) Equal motive field
d) Equal motion field
- Q.4 Breather is provided in a transformer to (CO-3)
a) Absorb moisture of air during breathing
b) Provide cold air in the transformer
c) To filter the transformer oil
d) None of the above
- Q.5 Which of the following loss in a transformer is zero even at full load. (CO-3)
a) Core loss

- b) Friction loss
c) Eddy current loss
d) Hysteresis Loss
- Q.6 Identify the color of phase wire, neutral wire and earth wire in domestic wiring system. (CO-4)
a) Red, Black, Yellow
b) Red, Yellow, Blue
c) Red, Yellow, White
d) Red, Black, Green
- Q.7 What type of material is used for winding/coil in induction motor. (CO-5)
a) Bronze b) Copper
c) Silicon Steel d) Cast Iron
- Q.8 Sub circuit are directly connected with (CO-6)
a) Energy Meter
b) DPIC Switch
c) Distribution Board
d) All of the above
- Q.9 A fuse is provided in an electric circuit for (CO-6)
a) Safeguarding the insulation against heavy current.
b) Reducing the current flowing in the circuit
c) Reducing the power Consumption
d) All of the above
- Q.10 The middle section of a PNP transistor is known as (CO-7)
a) Emitter b) Collector
c) Base d) All of the above

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SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Write a most common source of DC supply. (CO-1)
- Q.12 In an electric circuit the voltage is measured by which instrument. (CO-1)
- Q.13 The time period of an alternating quantity is the time required to complete one cycle. (True/False). (CO-2)
- Q.14 On which side of transformer the load is connected (Primary side or Secondary side). (CO-3)
- Q.15 What is the value of line voltage between two phase? (CO-4)
- Q.16 Which motor is used in ceiling fan? (CO-5)
- Q.17 Write full form of PVC. (CO-6)
- Q.18 Is earthing of electrical appliances is very important? (CO-6)
- Q.19 The valence electron of a conductor is also called as free electrons (True/False). (CO-7)
- Q.20 How many junctions are there in a transistor? (CO-7)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What are the advantages of electrical energy over other form of energy? (CO-1)
- Q.22 What is resistance? On what factor the resistance of conductor depends? (CO-1)
- Q.23 What are the advantages of improved power factor? (CO-2)

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Q.24 What are the causes of low power factor?

(CO-2)

Q.25 Explain various losses in transformer. (CO-3)

Q.26 List the part of a transformer and explain any two. (CO-3)

Q.27 What is high voltage distribution system?

(CO-4)

Q.28 Explain the working principle of 3 phase induction motor. (CO-5)

Q.29 Write any five differences of single phase and three phase Motors. (CO-5)

Q.30 What are differences between circuit and sub circuit. (CO-4)

Q.31 What are the common safety measures to avoid the risk of electric shock? (CO-6)

Q.32 What is the purpose of providing fuses on phase wires in an electric circuit? (CO-6)

Q.33 Explain the ELCB in detail. (CO-6)

Q.34 What is intrinsic and extrinsic semiconductor? (CO-7)

Q.35 What is the valence band and conduction band? (CO-7)

SECTION-D

Note: Long answer type questions. Attempt any two out of three questions. (2x10=20)

Q.36 Draw and explain star and delta connection of three phase electrical system. (CO-4)

Q.37 Briefly explain various methods of cooling of transformer. (CO-3)

Q.38 Explain forward and reverse biased VI characteristics of junction diode. (CO-7)

(**Note:** Course outcome/CO is for office use only)

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