

No. of Printed Pages : 4

Roll No.

120136/30136

3rd Sem. / Agriculture Engg. / Auto / Chem / Mech.

Subject : Basics of Electrical & Eltx Engg.

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note:Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- Define Electric Current.
 - Two applications of electricity.
 - Define voltage.
 - Give function of service line.
 - Name any two accessories of electrical installation.
 - Define electrical energy.
 - Two applications of a thyristor.
 - What is ELCB.
 - One Horse power = _____ watts.

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- Symbol of PNP transistor.
- Two applications of pumps.
- Define transformer.
- Define High voltage distribution system.
- Name various types of domestic circuits.
- Star Delta starter is used on _____ motor.
- What is P-type semiconductor.
- Two applications of MCB.
- Power in electrical circuit is measured by _____.

SECTION-B

Note:Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- What is function of domestic board in domestic installation
 - Differentiate between AC and DC.
 - How emf. is produced.

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- iv) What are various accessories of transmission line.
- v) What is difference between light, fan and power circuits.
- vi) Explain working of zener diode.
- vii) Name various types of pumps and its application.
- viii) Explain D.O.L starter.
- ix) Difference between single phase and three phase motors.
- x) Explain working of single phase Transformer.
- xi) How to identify various wirings in domestic circuits.
- xii) What are various instruments used for measuring voltage and current and how are they connected in electric circuit.
- xiii) Explain precautions against shock.
- xiv) Give characteristics of servo-motors.
- xv) How PNP transistor works.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain the connection and starting of 3-phase induction motor by star-delta starter.
- Q.4 Explain the arrangement of supply from pole to distribution board.
- Q.5 Explain various types of domestic circuits.
- Q.6 Explain concept of earthing and various types of earthing.
- Q.7 Write short note on :
 - (i) Advantages of electrical energy over other forms.
 - (ii) Diagram of 3 phase transmission system.