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3rd Sem. / Agri, Auto, Chem, P&P, Civil,
Mech, Plastic, Prod., T&D, CNC, CAD/
CAM, Print Making Tech.

Subject : Basics of Electrical and

Electronics Engineering M.M. : 100
Time : 3 Hrs.

SECTION-A

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

(Course Outcome/CO)

- ~~Q.1~~ Define Power. (CO-1)
~~Q.2~~ Define R.M.S. value of sinusoidal wave. (CO-1)
~~Q.3~~ Which instrument is used for measuring electric energy. (CO-1)
~~Q.4~~ Explain P-type semiconductor. (CO-7)
~~Q.5~~ Draw symbol of Zener Diode (CO-7)
~~Q.6~~ Expand ELCB. (CO-4)
~~Q.7~~ What is thyristor? (CO-7)
~~Q.8~~ What is process control? (CO-7)

(1) 180136/170336/120136/
030136/30423

Q.9 Define electric current. (CO-1)

Q.10 What is step up transformer? (CO-3)

SECTION-B

Note: Very Short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

Q.11 What is the effect of change in temperature on Resistance? (CO-1)

Q.12 Explain star connections. (CO-3)

Q.13 What is power factor? (CO-2)

Q.14 Explain the term efficiency related to Transformer. (CO-3)

Q.15 Draw the connection of wattmeter. (CO-1)

Q.16 What is SCR? (CO-7)

Q.17 Explain earthing. (CO-6)

Q.18 What is Fuse. (CO-8)

Q.19 Explain extrinsic semiconductor. (CO-7)

Q.20 What do you mean by transistor? (CO-7)

Q.21 Define form factor and peak factor. (CO-4)

Q.22 What is Electromagnetic Induction? (CO-3)

(2) 180136/170336/120136/
030136/30423

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten question. (8x5=40)

Q.23 Explain the various types of earthing. (CO-6)

Q.24 Explain the difference between A.C supply and D.C supply. (CO-1)

Q.25 Explain the concept of Phase and Phase difference. (CO-3)

Q.26 Give uses of transistor. (CO-7)

Q.27 Differentiate between high and low voltage distribution system. (CO-4)

Q.28 List the applications of MCB and ELCB. (CO-4)

Q.29 Explain Lenz's law. (CO-1)

Q.30 Derive the relationship between the beta and alpha of a transistor. (CO-3)

Q.31 Explain the concept of precautions against electric shock. (CO-6)

Q.32 Explain parts of domestic electrical Installation. (CO-4)

(3) 180136/170336/120136/
030136/30423

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four question. (3x10=30)

Q.33 Explain with neat sketch the construction and working of three phase Induction motor. (CO-5)

Q.34 Explain the following:- (CO-3)

a) Isolation transformer.

b) Cooling of transformer.

Q.35 Explain the following: (CO-4)

a) Differentiate between light fan circuit and single phase power circuit.

b) Identification of wiring system.

Q.36 Explain the diagram of transmission system and explain every component in detail. (CO-4)

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

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