

No. of Printed Pages : 4

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Roll No.

**1st Year Branch: Computer Engg.
Subject : Fundamentals of Electrical &
Electronics Engineering**

Time : 3 Hrs.

MM : 60

SECTION-A

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

Q.1 In a PNP transistor the collector current is mainly due to _____.

- a) Holes
- b) Electrons
- c) Protons
- d) None of the above

Q.2 The cell in which the chemical action is reversible is known as _____.

- a) Secondary Cell
- b) Primary Cell
- c) Nickel Cadmium cell
- d) None of the above

Q.3 The frequency of AC in India is _____.

- a) 50hz
- b) 100 hz
- c) 1000hz
- d) 10hz

Q.4 In lead acid battery the negative plate is made of _____.

- a) Pb
- b) PbSO_4
- c) PbO
- d) N

Q.5 Base of BJT is _____.

- a) Lightly doped
- b) Heavily doped
- c) Moderately doped
- d) Note doped

Q.6 The unit of reluctance is _____.

- a) Ampere turns/weber
- b) Weber turns
- c) Henry
- d) Weber Turns/Ampere

Section-B

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

Q.7 Define BJT.

Q.8 What is secondary cell?

Q.9 What is admittance?

Q.10 What is permeability.

Q.11 Define RMS value.

Q.12 A transistor has _____ number of junctions.

Section-C

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

Q.13 Explain the principle of Self Induction.

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180817

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180817

- Q.14 Explain the working of NPN transistor.
- Q.15 Explain the terms : Peak factor, cycle, frequency, amplitude.
- Q.16 Explain the analogy between electric and magnetic circuit.
- Q.17 Explain the care and maintenance of lead acid battery.
- Q.18 Explain energy stored in an Inductor.
- Q.19 Explain the concept of Inductive reactance.
- Q.20 Define power factor and its significance.
- Q.21 What is the effect of alternating voltage applied to resistance and capacitance in series.
- Q.22 Explain CMOS advantages.

Section-D

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

- Q.23 Explain construction and operation of MOSFET in depletion mode.
- Q.24 Explain working of fixed bias circuit and its advantages and disadvantages.
- Q.25 Explain principle of operation and construction of DC motor.

(3)

180817

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180817