S. B. Roll. No.....

BASIC OF ELECTRICAL AND ELECTRONICS ENGINEERING
2nd Exam/CSE/IT/9504/Nov'24
(For 2023 Batch Onwards)

Duration: 3Hrs. **M.Marks:50**

SECTION-A

Q1. Fill in the blanks any nine of the following. **9x1=9**

a. The rate at which work is done in an electric circuit is called_____.
b. Parallel circuit is defined as _____.
c. The opposition that the magnetic circuit offers to the magnetic flux is called _____.
d. The cells in which chemical action is reversible are called _____cells.
e. The algebraic sum of all the currents meeting at any junction point in an electric circuit is_____.
f. When the flux linking with a conductor changes, an _____is induced in it.
g. The majority and minority carriers in P-type semiconductors are _____
h. Efficiency of half wave rectifier and full wave rectifier are _____.
i. CMOS stands for _____.
j. Doping is the process of _____.
k. Clipper circuit is used to _____.
l. When the emitter-base junction is forward-biased and the collector-base junction is reverse-biased, then the transistor works in _____ region.

SECTION-B

Q2. Attempt any five questions. **5x4=20**

i. State and explain Kirchoff's second law.
ii. State and explain Thevenin's theorem.
iii. Comparison between magnetic and electric circuits.
iv. Write a short note on solar panels.
v. Explain the types of Extrinsic Semiconductor.
vi. Draw and explain the working of the half-wave rectifier.
vii. Explain the working of the NPN transistor.

SECTION-C

Q3. Attempt any three questions. **3x7=21**

a. Explain the construction of a lead acid battery.
b. Define the following terms relating to a.c. system. i) Waveform ii) Instantaneous value iii) Cycle iv) Alternation v) Time period vi) Frequency vii) Amplitude
c. Classification of solids based on energy band diagram.
d. Draw and explain the VI characteristics of the PN Junction Diode.
e. What do you mean by Filter circuit? What are the various components used in a Filter circuit? Explain its types.

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