No. of Printed Pages : **2**

Sl. No.

46125

B.Sc. I Semester Degree Examination, March/April - 2023

ELECTRONICS

Basic Electronics

(NEP)

Time : 2 Hours | Maximum Marks : 60

Instruction : *Answer* ***all*** *Sections.*

SECTION - A

1. Answer the following sub-questions : **10x1=10**

(a) What is Electronic Active components ?

(b) Define Inductance of Inductor.

(c) Define frequency of AC.

(d) Define Phase difference.

(e) Define node and Bilateral in network theorem.

(f) What is energy level in atom ?

(g) What is semiconductor ?

(h) Define depletion-layer in pn Junction.

(i) Expand the term LED.

(j) What is JFET ?

SECTION - B

Answer **any four** questions : **4x5=20**

2. Write note on Electrolytic capacitor.

3. Explain Resonance phenomenon in RLC series Resonance circuit.

4. State KCL and KVL in network theorems.

5. Explain the working of p - type semiconductor.

6. Construction and working of photo diode and draw o/p characteristics of various lumens.

7. Explain PNP transistor working and leakage currents.

P.T.O.

SECTION - C

Answer **any three** questions : **3x10=30**

8. Explain the construction of carbon composition resister with color code method.

9. Obtain voltage and current equation consisting of series RC circuit. Draw impedance triangle and phase relations.

10. State and Prove Reciprocity theorem in network theorems.

11. With neat circuit diagram obtain I - V characteristics of pn Junction diode in Forward and Reverse bias. Draw I - V characteristic curve.

12. What is P-Channel JFET ? Explain the working of P-Channel JFET.

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