No. of Printed Pages : **2**

21BSC4C4ELL

Sl. No.

B.Sc. IV Semester Degree Examination, September/October - 2023

ELECTRONICS

IV : Digital Electronics and "C" Programming

(NEP)

Time : 2 Hours Maximum Marks : 60

Note : *Answer **all** sections.*

SECTION - A

1. Answer **all** questions. **10x1=10**

(a) Convert $(10101)_2$ binary number into decimal number.

(b) Define Logic Gate.

(c) Expand RTL and TTL.

(d) Define Latch.

(e) Name any two input devices.

(f) Name key words in "C" Programming.

(g) Write the syntax of if else statement.

(h) Mention array in C-Programming.

(i) Expand SOP and POS in logic simplification.

(j) What is Truth table in logic gate ?

P.T.O.

SECTION - B

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

2. Convert $(496)_{10}$ decimal number into binary number.

3. With logic symbol explain Exclusive – OR gate (XOR) and write Truth table.

4. Explain Half-Adder with logic diagram and Truth table.

5. Explain the Basic Structure of "C" Programming.

6. Explain if else statement with an example.

7. Explain TTL logic family and mention its advantages.

SECTION - C

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

8. State and prove Demorgan's theorms taking case studies.

9. With neat logic symbol explain basic logic gates AND, OR, NOT gates with Truth table.

10. Explain the working of JK flip-flop with Race around condition.

11. Explain the Switch Statement with syntax, flow chart and example.

12. Explain the Arithmetic and logic operators in C-language.

13. Write short notes on :

(a) Full-adder

(b) Hexadecimal number system

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