

No. of Printed Pages : 03

Roll No.

32095

B. Sc. EXAMINATION, 2025

(Second Semester)

(Re-appear Only)

COMPUTER SCIENCE

Paper-II

Logical Organisation of Computers

Time : 3 Hours]

[Maximum Marks : 40

Before answering the question-paper, candidates must ensure that they have been supplied with correct and complete question-paper. No complaint, in this regard will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. (a) Define combinational circuits.

(b) Define Encoder.

(c) What is ASCII code ?

(d) What do you mean by X-NOR gate ?

4×2=8

Unit I

2. Explain error detecting and correcting codes with one example. 8

3. Solve the following : 8

(a) $(7223)_8 = (?)_{16}$

(b) $(10100101)_2 = (?)_8$.

Unit II

4. Solve the K-map :

$F(A, B, C, D) = \Sigma(0, 1, 2, 3, 4, 5, 14, 15).$

8

5. Explain the following : 8

(a) Boolean functions

(b) Truth table.

Unit III

6. Explain Decoder with its implementation. 8

7. What are universal gates and why are they so called ? 8

Unit IV

8. Define flip-flop. Explain Master slave flip-flop in detail. 8

9. Explain the following : 8

(a) PIPO and SIPO

(b) State table.

