S.P.U. (P.G.) College, Falna

(Affiliated to Jai Narain Vyas University, Jodhpur)

Assignment for Semester I - 2023-24

Program : Bachelor of Computer Application

Subject / Course Name &Code : DIGITAL LOGIC [Code – CSA 5004T]

Max. Marks: 30

Note: The question paper is divided into **Two sections A and B**. Write answers as per given instructions.

Section A

(Very Short Answer Type Questions)

Note: Answer all questions. Give answer in One Word or One Sentence or maximum up to 30 Words. Each question carries 2 marks. (5X2=10)

Q.1

(A)What is Binary No in Computer Organization?

(B) convert following in to (1) $(3456)10= (\ )2, (\ )16, (\ )8$

(C) Construct truth table for AND ,OR, Not, XOR gets Logic diagram and truth table

(D) What is Combination and sequential Circuit?

(E) What is flip-flop and Register?

Section B

(Long Answer Type Questions)

Note: Answer any two questions selecting one question from each pair (A OR B). Give answer maximum up to 500 Words. Each question carries 10 marks. (2X10=20)

Q.2 (A) Explain Half Adder and Full adder with the help of k-map

OR

(B)) Explain Multiplexer and Demultiplexer combination circuit

Q.3 (A) simplify following expression by using K-MP

(1)$F(A,B,C,D)=\Sigma(1,4,5,7,8,9,11,13,15)$

(2)$F(A,B,C)= \Sigma(1,4,5,7,8,9)$

OR

(B) simplify following expression by using K-MP

(1)$F(A,B,C,D)=\Pi(1,4,5,7,8,9,11,13,15)$

(2)$F(A,B,C)= \Pi (1,4,5,7,8,9)$