Total No. of Printed Pages: 02

SUBJECT CODE NO:- B-2121
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. F. Y. (Sem-II)
Examination November/December- 2022
Electronics Paper-V
Digital Electronics-II

[Time: 1:30 Hours] **[Max. Marks:50]**

N.B "Please check whether you have got the right question paper"

1) Attempt all questions.
2) Illustrate your answers with proper diagram.

Q.1 Describe the operation of S-R.FF Using suitable logic diagram. Give its truth. Table & symbol. 20

OR

What is Asynchronous Counter? Explain the working do of 4 bit. Asynchronous counter with. Suitable logic diagram. 20

Q.2 With neat logic diagram. Explain the working of Parallel in-Parallel out Shift Register 20

OR

Write Short notes on (any four) 20

a) Ring counter
b) Random asses Memory
c) R-2R ladder type D/A Converter
d) bidirectional shift registers
e) DAC Characteristics.

Q.3 Attempt the following MCQ with correct answer. 10

1) Most basic form of flip flop may be formed by inter connecting two ----------
   a) AND b) NAND c) OR d) NOT

2) R-S Flip Flop has active input as----------
   a) Low b) Low or high c) High d) None of above

3) ----------Flip-flops are required for a Mod 32 Counter
   a) 64 b) 5 c)32 d)6

4) If a 4-bit Shift resistor is to be made using D-Filip-Flops then ---------- Flip Flop are required.
   a) 2 b) 4 c) 3 d) 5

5) The Memory in which data stared is lost When power is turned off is ---------- Memory.
   a) volatile b) permanent c) Non-volatile d) all of the above

6) A register is a digital ckt. with two basic function data storage &----------
   a) clear b) shifting c) Movement d) all a, b & c

7) ----------flip-flops required for Mod 12 Counters
   a) 3 b) 4 c) 12 d) 6

8) Dual slop convertor is----------
   a) A.C. Converter b) D.C. Converter c) AC/DC Converter d) D/A Converter

9) Which of the following is an example of a counter with a truncated modulus.
   a) 8 b) 15 c) 16 d) 32

10) A shift register is a logic circuit which is ----------
   a) Sequential logic ckt. b) Combinational & sequential logic ckt.
   c) Combinational logic ckt. d) None of the above