

Total No. of Printed Pages:2

**SUBJECT CODE NO:- 2121**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**B.Sc. F.Y Sem-II**  
**Examination March/April-2022 (To be held in June/July-2022)**  
**Electronics Paper-V**  
**Digital Electronics-II**

[Time: 1:53 Hours]

[Max. Marks:50]

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Illustrate your answer with suitable diagram.

Q.1 Explain the operation of the D-flip-flop using suitable logic diagram give its truth table and symbol. 20

OR

Explain the synchronous decade counter with suitable logic diagram. Sketch the timing diagram.

Q.2 With the neat logic diagram explain serial in parallel out shift register. 20

OR

Write short notes on (any four)

- 1) T-Flip-flop
- 2) Read only memory
- 3) Dual slope A/D converter
- 4) Parallel in parallel out shift register
- 5) R/2R ladder type D/A converter

Q.3 MCQ 10

1. Ic 7476 consist -----flip flops
 

a) One	b) Three
c) Two	d) Four
2. In master slave flip when slave is activated or enable
 

a) Clock pulse goes high	b) Clock pulse goes low
c) Both a & b	d) None of above
3. If a counter is constructed with five flip flops the maximum number of binary states is ----
 

a) 8	b) 32
c) 64	d) 128
4. The flip flop is known as -----flip flop if clock is high and input is high then output is always high

- a) SRFF  
c) DFF
- b) T-FF  
d) All above
5. Which of the following is not shift register application?  
a) SIPO  
c) PIPO
- b) SISO  
d) SISS
6. In synchronous counter circuit present state is determine by  
a) Unlocked FF  
c) FF
- b) Clocked FF  
d) Latches
7. How many clock pulses are required to completely load serially a five bit shift register?  
a) 2  
c) 5
- b) 3  
d) 4
8. RAM memory is  
a) Volatile  
c) Permanent
- b) Non volatile  
d) None of the above
9. In EPROM data is -----stored.  
a) Temporary  
c) Both a & b
- b) Permanent  
d) None of above
10. How many types of RAMS are?  
a) Three  
c) Two
- b) Four  
d) Five