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**SUBJECT CODE NO:- B-2186**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**B.Sc. F.Y (Sem.-II) Examination OCT/NOV 2019**  
**Electronics Paper-V**  
**Digital Electronics-II**

[Time: 1:30 hours]

[Max. Marks:50]

Please check whether you have got the right question paper.

- N.B (i) Attempt all questions.  
(ii) Illustrate your answer with suitable diagram.
- Q.1 Describe the operation of the Master slave JK Flip Flop using suitable logic diagram. Give its truth table. 20  
OR  
Explain the working of the Asynchronous Decade Counter with suitable logic diagram.
- Q.2 With neat logic diagram Explain the working of Serial in Serial out shift register. 20  
OR  
Write Short notes (any four)  
1) Read only memory  
2) D/A converter  
3) Successive approximation A/D converter  
4) Buffer register  
5) Ring counter  
6) PROM
- Q.3 Multiple Choice Questions 10
1. Which of the following input combination gives invalid output for SR flipflop.  
a) 00      b) 01      c) 11      d) 00
  2. Which of the following is a type of shift register counter  
(a) Decade      (b) Binary  
(c) BCD      (d) Ring counter
  3. A register is a digital circuit with two basic function data storage and -----  
(a) Clear      (b) Movement  
(c) Shifting      (d) all of these
  4. If a four bit shift register is to be made using D Flip – flop then -----D flip flop required.  
(a) One      (b) two  
(c) three      (d) four

5. \_\_\_\_\_ Flip-flops required for a mod-10 counters.  
(a) 3 (b) 4  
(c) 6 (d) none of the above
6. The memory in which data stored in the memory is lost when power is turned off is \_\_\_\_\_ memory.  
(a) Non – volatile (b) Volatile  
(c) Permanent (d) none of the above
7. The most basic form of flip flop may be formed by interconnecting two \_\_\_\_\_  
(a) AND gate (b) NAND gate  
(c) OR gate (d) NOT gate
8. Shift register basically consist of several single byte \_\_\_\_\_ type of data.  
(a) SR – type (b) D – type  
(c) T – type (d) JK – type
9. Dual slope converter is  
(a) DC converter (b) AC converter  
(c) D/A converter (d) A/D converter
10. Which of the following is an example of a counter with a truncated modulus.  
(a) 8 (b) 13  
(c) 16 (d) 32