

B.C.A. Part-I Semester-II (Old) Examination**DIGITAL TECHNIQUES-II**

Time : Three Hours]

[Maximum Marks : 60

Note :— (1) All questions are compulsory.

(2) Draw neat diagram wherever necessary.

1. (A) Explain construction & working of transistorised Astable Multivibrator. 6
- (B) Explain construction & operation of JK flip flop with logic diagram & truth table. 6

OR

2. (A) Explain Clocked RS flip flop with truth table & logic diagram. 6
- (B) Explain the operation of D-FF using logic diagram, truth table & symbol. 6
3. (A) Explain 3 bit asynchronous up counter with neat diagram & waveform. 6
- (B) Explain MOD-7 counter with diagram, truth table & waveform. 6

OR

4. (A) Explain 3 bit asynchronous up-down counter. 6
- (B) Explain 3 bit asynchronous down counter with diagram & waveform. 6
5. (A) Explain the working of Shift Right register with timing diagram. 6
- (B) Explain the working of 4 bit Johnson's counter. 6

OR

6. (A) Explain working of SIPO register with truth table. 6
- (B) Explain the working of Ring counter with neat diagram. 6
7. (A) Explain the memory hierarchy with diagram. 6
- (B) Explain the operation of Compact Disk. 6

OR

8. (A) Explain the following memories : 6
 - (1) ROM
 - (2) PROM
 - (3) EPROM
- (B) What is memory ? Give classification of memories. 6
9. (A) Explain weighted resistor type D/A converter. 6
- (B) Draw & explain IC ADC0808 with Pin diagram. 6

OR

10. (A) Explain counter type A/D converter. 6
- (B) What is A/D & D/A converter ? Explain need of data converters. 6