**Swami Vivekanand Mahavidyalaya, Udgir**

**Dept. of Computer Science**

**Pre Semester Exam Winter 2016**

**Class: BCSFY(I-sem) Subject: Fund. Of Digital Logic(S1.3)**

**Date: 22/10/2016 Marks: 75 Time: 3 hrs**

**Q.1] Attempt any FIVE of the followings. [5 \*3= 15]**

a) Digital Signals

b) Binary Number System.

c) 1-Bit Memory Cell

d) IO Buses

e) Register

f) T-type Flip Flop

e) SOP

**Q.2] Attempt any TWO of the following. [2 \*5= 10]**

a) Explain AND Gate

b) Explain Ex-OR Gate

c) De-Morgan’s theorems

**Q.3] Attempt any TWO of the followings. [2 \*5= 10]**

a) Explain Excess-3 Code

b) Do the followings: 1) (234)**10**=(?)**2** 2) (10101)**2**=(?)**8** 3) (ABC)**16**=(?)**2**

4) (777)**8**=(?)**2**  5) (2AD)**16**=(?)**10**

c) Explain error detecting and correcting codes

**Q.4] Attempt any TWO of the followings. [2 \*5= 10]**

a) Explain K-map.

b) Explain Multiplexer.

c) Express the function in POS form: F=AB+CA

**Q.5] Attempt any TWO of the followings. [2 \*5= 10]**

a) Explain clocked S-R Flip Flop.

b) Explain J-K Flip Flop.

c) Explain D-type Flip Flop.

**Q.6] Attempt any TWO of the followings. [2 \*5= 10]**

a) What is Register? Explain Shift Register.

b) Ripple Counter.

c) Parallel Counter.

**Q.7] Attempt any TWO of the followings. [2 \*5= 10]**

a) DAC

b) Block Diagram of Microprocessor.

c) ADC