AK-21155

Seat No. _____

B. C. A. (Sem. II) (Non CBCS) Examination

March / April – 2016

CS-09 : Computer Organization & Architecture

(Old Course)

Time : **3** Hours] [Total Marks : **100**

1 Attempt Any Four Out of Five Questions. **20**

(1) Explain Logic Gate.

(2) Difference between Combinational and sequential Circuit.

(3) Explain De-Morgan's Theorems with detail.

(4) Explain Floating Point Representation.

(5) Explain Memory Bus and IO BUS.

2 Attempt Any Four Out of Five Questions. **20**

(1) Explain NAND Gate as Universal Gate.

(2) Explain S-R Flip-Flop.

(3) Explain FULL-ADDER in detail.

(4) Explain Input Output Processor.

(5) Explain Types of Interrupt.

3 Attempt Any Four Out of Five Questions. **20**

(1) Explain Control Word with Example.

(2) Explain Memory Stack.

(3) Explain Reverse Polish Notation.

(4) Explain 4*1 Multiplexer.

(5) Explain Master-Slave Flip-Flop.

4 Attempt Any Four Out of Five Questions. **20**

(1) Explain 8*3 Encoder.

(2) Explain Bi-directional Register.

(3) Explain Error-Detection Code.

(4) Explain ALU Process with Detail.

(5) Explain DMA Controller.

5 Attempt Any Four Out of Five Questions. **20**

(1) Explain 4 bit Registers with Bus Organization.

(2) Convert into RPN with Stack Operations

(1) (2+(1+2)*3)

(2) (A*B) + (C $\wedge$ D)

(3) Do as direct.

(1) (1101 * 100) Perform the Multiplication.

(2) $(234)_8$ convert into decimal.

(4) Simplify the following.

(1) F(X,Y,Z,W) = Σ (4,5,6,8,9,10)+ d(1,3,7,11,15)

(2) F(A,B,C) = (0,1,2,3)

(5) Simplify the following using of postulates.

(1) (BC' + A'D) (AB' + CD')

(2) (1 + A'B'C')' = 0