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MBH-003-003207 Seat No. _____

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

March / April - 2018

CS - 09 : Comp. Organization & Architecture

(Old Course)

Faculty Code : 003

Subject Code : 003207

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 Attempt the following : **20**

(1) An inverter is also called a _____ gate.

(2) NAND is complements of AND gate. True or false ?

(3) The K-MAP is also known as _____ Diagram.

(4) Which bus is Bi-Directional?

(5) The Process of Inserting an Item into the stack is known as _____

(6) Full Form of CPU.

(7) Floating point representation is used to store _____

(8) One byte = _____ bits

(9) Full Form of VLSI.

(10) Stack Means _____

(11) Full form of SISO.

(12) DMA stand for _____.

(13) The Circuit used to store 1 bit of data is known as _____

(14) Find 1's Complement 11010 = _____

(15) If both input is high then what is output in NAND gate?

(16) Which Combinational Circuit adds two Binary Bits?

(17) Multiplication of 1101*100 is _____

(18) What is Address Register in DMA Controller?

(19) Division of 10110 ÷ 10

(20) _____ is a Digital Circuit having number of input lines and only one output line.

1 (A) Attempt any **three** out of six : **6**

(1) Write a note on Encoder.

(2) Explain LSI, MSI, VLSI.

(3) Difference Between Combinational Circuit and Sequential Circuit.

(4) Explain Don't care Condition.

(5) Explain Binary Counter.

(6) Explain D Flip Flop.

(B) Attempt any **three** out of six : **9**

(1) What is Logic Gates? Explain AND, OR, NOT Gate with Example.

(2) What is K-MAP? Explain with Example.

(3) Write a Short Note on IC.

(4) Explain Floating Point Representation.

(5) Explain Stack Organization.

(6) Explain Bi-Directional Shift register.

(C) Attempt any **two** out of five : **10**

(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 (A) Attempt any **three** out of six : **6**

(1) What is Parity Bit?

(2) List Advantages of Polish Notation.

(3) Explain Address Bus and Data Bus.

(4) Write the Terms (1) Truth table (2) Bus

(5) Perform Multiplication : 11011*110

(6) Obtain 2's Complement : 101101

(B) Attempt any **three** out of six : **9**

(1) Explain ALU with Block Diagram.

(2) Explain Memory Bus.

(3) Explain types of Register.

(4) Explain De-Morgan's Theorems with truth table.

(5) Explain Error Detecting Codes.

(6) Explain Memory Stack.

(C) Attempt any **two** out of five : **10**

(1) Explain Control Word with Example.

(2) Explain Reverse Polish Notation.

(3) Explain 4 * 1 Multiplexer.

(4) Explain Master-Slave Flip Flop.

(5) Explain DMA Controller.
