Department of Computer Science & Engineering
Motilal Nehru National Institute of Technology, Allahabad
Mid Sem. Examination (ODD-Semester) 2018-19

Class: MCA First Semester 2018-19

M.M. : 20 **Subject: Digital Computer Organization**(Code:CA31103) **M. Hrs: One & Half**

Note: 1.ALL Questions are compulsory.
2.Write ALL parts of a question together in one attempt NOT here & there.
3.Write to the point. Make & State necessary assumptions.

Q.No.1 (a) Both our text followed in Class detail **Block diagram** of Digital Computer. Compare them. **(01)**

(b)Define the following circuits **with their one practical application:** **(02)**
(i) Decoder **(ii)** Encoder **(iii)** Multiplexer **(iv)** Binary Counters **(v)** Flip-Flop

(c) What do you mean by **Memory Addressing capacity & WORD Length of a Microprocessor ?**
What is Memory Addressing capacity & WORD Length of 8085 Microprocessor? Justif
(02)

Q.No.2(a) How Status Flags in 8085 Microprocessor are **set**? Explain. **(01)**
(b) Define **"Addressing Modes".** Define ALL addressing modes of **8085** Microprocessor with One example in each. **(03)**

Q.No.3 Write down an 8085 Assembly language Program for the following with proper comments. Make & State necessary assumptions. **(Write Addressing MODEs of each Instructions ALSO.)**
"Addition of list of 5 One Byte Numbers & Result is also one Byte." **(03)**

Q.No.4 (a) Trace **Logic Diagram** for the **4-Bit Adder -Subtractor** Circuit. **(02)**
(b) Trace **Logic Diagram** for the 4-Bit Binary Incrementor Circuit **using Half Adder.** **(01)**

Q.No.5(a) Explain in brief Construction & Working of **Hard Disk & Pen Drive.** **(02)**

(b) What is **BIOS**? Write its ROLE in BOOTING of the Computer. (02)

(c) **Compare Assembler Vs CROSS-Assembler? Give one Example of CROSS-Assembler & Justify why it is called CROSS-Assembler?**
(01)

* END *