

FACULTY OF ENGINEERING**B.E. IV Semester (AICTE) (Main & Backlog) Examination, October 2021****Subject: Computer Organization****Time: 2 hours****Max. Marks: 75****Note: Missing data, if any, may be suitably assumed.****PART - A****Answer any five questions.****(5x3 = 15 Marks)**

1. What is the use of CALL and RETURN instructions?
2. What is meant by program status word (psw).
3. Draw block diagram of CPU.
4. Differentiate Isolated and Memory mapped I/O.
5. How to write back method differ from write through in cache memory.
6. Differentiate SRAM and DRAM
7. Explain flag register of 8086
8. How is effective address calculated in "Indirect addressing Mode"?
9. An eight bit register contains the binary value 1010010. What is value in the registrar after Arithmetic right Shift? Is there any overflow?
10. Write an assembly language program to perform 8 bit subtraction.

PART - B**Answer any four questions.****(4x15 = 60 Marks)**

- 11(a) what do you understand by the term "Addressing Modes"? Explain any six addressing modes with examples.
- 11(b) Write an Assembly language program to evaluate $(w+x+y)-(u/v)$ using three, two, one, and zero address instructions.
- 12(a) Explain with block diagram how CPU and IOP communicate with each other.
- 12(b) Explain the three different modes of data transfer.
- 13(a) Explain two-way set associative mapping in cache memory with an example.
- 13(b) Explain the functioning of magnetic disk.
- 14 Explain the architecture of 8086 microprocessor in detail with diagram.
- 15 Explain Data transfer and Arithmetic instructions of 8086 in detail with examples.
- 16(a) Explain Asynchronous data transfer with neat block and timing diagrams.
- 16(b) Explain types of interrupts in detail. Draw interrupts cycle.
- 17 Write short notes on :
 - (a) Push and Pop Instructions
 - (b) Auxiliary memory
 - (c) Pipelining
