

Exam. Code : 208603

Subject Code : 5249

M.Sc. I.T. 3rd Semester

MIT-305 : MICROPROCESSOR & ITS APPLICATIONS

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt any *five* questions. All questions carry equal marks.

1. (a) Discuss the evolution of Intel's Microprocessors since 1972. 10
- (b) Differentiate between Programmable and Embedded Microprocessor. 10
2. (a) Explain software architecture of 8088 microprocessor. 10
- (b) Differentiate between even-address boundary and odd-address boundary. 10
3. (a) What is the word length of 8088's physical address? What address elements are combined to form a physical address? 6
- (b) Discuss Status Registers of 8088 microprocessor. Explain various functions of flags associated with it. 10
- (c) What is stored at address $FFFF_{16}$? 4

4. (a) Describe the wave form of system clock of 8086 microprocessor. Depict its relationship with peripheral clock with the help of a diagram. 10
- (b) Draw the block diagram of a maximum-mode configuration of 8088 and 8086 respectively. 10
5. (a) Explain minimum-mode memory control signals in detail. 10
- (b) Explain. Write bus cycle of 8-bit data in a minimum-mode 8086 based microcomputer system. 10
6. What are different types of I/O ? What type of I/O is in use when peripheral devices are mapped to the 8088's I/O address space ? 20
7. What are the various types of RAM ? Draw a block diagram of Static RAM. Discuss SRAM Read and Write cycle operations with the help of an example. 20
8. What do you mean by an Interrupt ? What are its various instructions ? Explain minimum-mode 8088 system external hardware-interrupt interface. 20