

Dec.-23-0504

EE-602 (Microprocessors & Applications)

B.Tech. 6th (CBCS)

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, by selecting one question each from units I, II, III, IV and Question no. 9 which is compulsory.

UNIT - I

1. Discuss
 - (a) (i) The features of 8085 microprocessor. (10)
 - (ii) The role of clock in 8085.
 - (b) Various addressing modes of 8085 with examples. (10)
2. Draw the block diagram showing the architecture of 8085 microprocessor and explain the function of its important components. (10)

UNIT - II

3. Write an 8085 assembly language program for
 - (a) Finding the largest number in a string N elements
 - (b) Arranging the string of 155 elements in a descending order. (10)
4. Explain:
 - (a) The hardware and software interrupts of 8085.
 - (b) The I/o data transfer with the help of interrupts. (10)

2 UNIT - III

5. Write a detailed note on 8255 programmable peripheral interface (PPI). (10)
6. Explain:
 - (a) I/o mapped I/o and memory mapped I/o.
 - (b) The features of 8251 chip. (10)

UNIT - IV

7. Describe:
 - (a) Limitations of 8085, main features of 8086 and then its limitations.
 - (b) How to select a microprocessor among 8085, 8086 for a microprocessor based applications? (10)
 - (c) How many address lines does 8086 have? (10)
8. (a) Draw and explain the block diagram of 8086 microprocessor for maximum mode of operation. (10)
- (b) Discuss the architecture of 8086. (10)

UNIT - V (Compulsory)

9. Describe:
 - (a) What are the various 8085 Flags? Explain them.
 - (b) What is stack? What are instructions associated with 8085 stack? What are its applications?
 - (c) Important features of 8257 chip.
 - (d) Working of RIM and SIM instructions of 8085. Also EI and DI.
 - (e) How will you distinguish between synchronous Asynchronous communication? Explain Asynchronous serial data communication using SOD and SID. (5×4=20)