

SUBJECT CODE:- 363
FACULTY OF ENGINEERING AND TECHNOLOGY
T.E.(EEP/EE/EEE) Examination Nov/Dec 2015
Microprocessor & Interfacing
(Revised)

[Time: Three Hours]

[Max. Marks: 80]

“Please check whether you have got the right question paper.”

- N.B i) Q.No.1 from section A and Q.No.6 from section B are compulsory.
 ii) Solve any two questions from the remaining questions in each section A and B.

Section A

- | | | |
|-----|---|----|
| Q.1 | Solve any five. | 10 |
| | a. What are the functions of an accumulation? | |
| | b. What do you mean by address bus? | |
| | c. Why is the data bus bi-directional used? | |
| | d. What is a flag? | |
| | e. Write the function of ALU | |
| | f. Define T-state. | |
| | g. Define the types of branching operation | |
| | h. Give the difference between JZ and JNZ. | |
| Q.2 | a) Explain the architecture of microprocessor 8085. | 08 |
| | b) With suitable examples explain 8085 addressing modes in detail. | 07 |
| Q.3 | a) Write a 8085 ALP to generate a accurate time delay of 100ms. | 08 |
| | b) Draw and explain the timing diagram of memory read cycle. | 07 |
| Q.4 | a) Write a assembly language program to find out the largest number from the given unordered array of 8 bit numbers. Stored in the locations from known address | 08 |
| | b) Write suitable examples explain 8085 instruction set in detail. | 07 |
| Q.5 | a) Write a ALP to add the contents of memory locations 4000H and 400H and place the result in memory location 4002H. Draw flow chart also. | 08 |
| | b) Write short note on stack instructions. | 07 |

Section-B

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|------|--|----|
| Q.6 | Solve any five | 10 |
| | a. What is an interrupt z/o | |
| | b. What is S/M | |
| | c. Write an instruction to enable all the interrupts in an 8085 system | |
| | d. What are the two modes of DMA execution | |
| | e. What is the purpose of 8255 PP1 | |
| | f. Write the control word format in the BSR mode. | |
| | g. What is USART | |
| | h. Define memory mapped I/O. | |
| Q.7 | a) With a neat block diagram explain in detail the internal architecture of 8255 and its registers | 08 |
| | b) Explain the block diagram of the 8155 I/O section and timer. | 07 |
| Q.8 | a) Describe the architecture of 8051 with neat diagram. | 08 |
| | b) State various modes available for timer 8051 and explain any one. | 07 |
| Q.9 | a) Discuss the architecture and working of 8253 timer. | 08 |
| | b) Explain the five interrupts inputs of 8085 with priority. | 07 |
| Q.10 | a) Draw and explain pin diagram of 8259. | 08 |
| | b) Write short note on MP based protective relays. | 07 |

