(For the candidates admitted from 2012 – 2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Fourth Semester

Electronics and Communication

8085 MICROPROCESSOR AND INTERFACING

Time : Three hours   Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Name the valid register pairs provided with 8085 microprocessor.

2. Define "Fetch cycle".

3. Explain the following instructions.
   (a) ADDr   (b)   XRI data

4. Name the status and control signals of 8085.

5. What is an instruction?

6. Give two examples for register addressing modes.

7. Expand (a) RWM (b) EPROM.

8. Mention the advantages of LED.

9. Define the step angle of a stepper motor.

10. Which segments will be turned on to display number '1' on search segment display?

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Discuss the functions of various flags in 8085.

Or

(b) Explain the instruction flow in 8085, with a block diagram.

12. (a) Explain stack operation.

Or

(b) Write an ALP to add two 8-bit numbers.

13. (a) Describe the instruction format of 8085.

Or

(b) Draw and explain the timing diagram for memory write machine cycle.

14. (a) Write a time delay subroutine and explain delay calculations.

Or

(b) Explain the interfacing of switches with 8085.

15. (a) Describe the features of DACO 800.

Or

(b) Describe a 4 × 4 matrix keyboard.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the internal architecture of 8085, with a neat block diagram.

17. Explain the arithmetic and logical instructions of 8085.

18. Discuss the addressing modes of 8085 with suitable examples.

19. Draw the block diagram of 8255 PPI and describe the architecture.

20. Describe an 8085 based stepper motor control system.

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