BSC DEGREE (CBCS) EXAMINATION , MAY 2019

Fourth Semester

B.Sc Computer Science Model III

Complementary Course - EL4CMT09 - ELECTRONICS - MICROPROCESSOR AND ASSEMBLY LANGUAGE PROGRAMMING

2017 ADMISSION ONWARDS

B6518A26

Maximum Marks: 80   **Time: 3 Hours**

Part A

Answer any **ten** questions.

Each question carries **2** marks.

1.   What is the difference between a microprocessor and a CPU?

2.   What do you mean by addressing mode.

3.   List the features and functions of BIU unit.

4.   What do you mean by bottom -up design in assembly language.? What is the main difference between bottom-up and top-down design ?

5.   List the IO instructions of 8086.

6.   Which are the assembler directives used to define a procedure?

7.   How do you pass parameters to a macro?

8.   Which are the interrupt types in 8086 assigned for (a) system call services (b) users ?

9.   What are the two ways in which data transfer can occur in handshake mode of 8255?

10. Give a brief descrition on Adress Unit of 80286

11. Write short notes on protected virtual mode of 80286

12. Explain RISC Characteristics

(10×2=20)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Discuss how the internal data operations are carried out in 8085 microprocessor with examples.

14. Explain the peripheral or externally initiated operations

15. Write a short note on REPEAT- UNTIL Programs.How a problem is defined and implemented using REPEAT- UNTIL.

16. Write a recursive procedure to calculate factorial of 3?

17. Explain the control word and status word format of 8254?

18. Mention the features of 8259?

19. Writes notes on 80286 modes

20. Diffrentiate on 80386 signals

21. Writes notes on 80486 Functional units

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

22. Explain the architecture of 8085 with a focuss on its functional units

23. Explain the internal architecture of 8086 with a focuss on its functional units.

24. (a) With neat block diagram the explain the functions of 8257.

    (b) Explain DMA transfer timing diagram.

25. Explain 80386 architecture with block diagram

(2×15=30)