6437
BOARD DIPLOMA EXAMINATION
MARCH/APRIL - 2019
DIPLOMA IN ELECTRONICS AND COMMUNICATION ENGINEERING
MICROPROCESSORS
FOURTH SEMESTER EXAMINATION

Time: 3 Hours   Total Marks: 80

PART - A   (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. **What is the output of the following instructions?**
   (a) **IN 23H**   (b) **OUT 70H**

2. **Define the following instructions:**
   (a) **LDA 2530H**   (b) **STA 2170H**

3. **State the function of Instruction Queue.**

4. **What are the General perpose registers of 8086 microprocessor and state their functions.**

5. Explain **WAIT** operation of 8086 microprocessor

6. Explain **LOOP** operation of 8086 microprocessor

7. What are the steps required for calling a subroutine?

8. List the assembler directives?

9. What is pipelining?

10. State the features of Pentium processor?

PART - B   (10m x 5 = 50m)

Note 1:Answer any five questions and each carries 10 marks

2:The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. (a) **Explain multiplexing of address and databus in 8085**   6Marks
    (b) **Draw the Pin out diagram of 8085**   4Marks

12. Draw the timing diagram of memory read and memory write cycles and explain

13. (a) Differentiate between 8- bit and 16- bit microprocessors⁻

                                     6M

    (b) State the need of memory segmentation in detail?   **4M**

14. (a) **Draw the generalized instruction fromat of 8086 microprocessor and explain with example**   **5M**

    (b) **Explain the generation code for an instruction "MOV CL, [SI]" Consider the opcode for MOV is 100010?**   **5M**

15. (a) Explain the Logic instructions of 8086 microprocessor

                                       5M

    (b) Explain the instructions affecting flags of 8086 microprocessor   **5M**

16. Write an assembly language program to perform addition of two, 16 bit uumbers

17. (a) **Draw the internal block diagram of Intel 80286**   **5M**

    (b) **Explain the memory management of 80286 microprocessor in protected mode 5M**

18. **Draw the internal block diagram of Intel 80386 and Explain the function of each block**

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