

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 purpose 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?**

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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**

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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 format 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 numbers
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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