

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE, NOVEMBER - 2025**

**COMPUTER ORGANISATION**

[Maximum marks: 75]

[Time: 3 Hours]

**PART A**

**I. Answer all the following questions in one word or one sentence. Each question carries 1 mark.**

**(9 x 1 = 9 Marks)**

|   |   | Module outcome | Cognitive level |
|---|---|----------------|-----------------|
| 1 | The register that hold the address of the next instruction to be executed is termed as..... | M1.02          | R               |
| 2 | Expand RAID.  | M1.09          | R               |
| 3 | A keyboard is an .....device.   | M2.05          | R               |
| 4 | SCSI stands for.....  | M2.04          | R               |
| 5 | .....is the core of CPU.  | M3.01          | R               |
| 6 | MBR stands for .....  | M3.01          | R               |
| 7 | List any two general purpose registers of 8086.   | M4.02          | R               |
| 8 | The physical memory space of 8086 is .....  | M4.02          | R               |
| 9 | List any two flag bits of 8086 Flag register.   | M4.02          | R               |

**PART B**

**II. Answer any eight questions from the following. Each question carries 3 marks.**

**(8 x 3 = 24 Marks)**

|    |  | Module outcome | Cognitive level |
|----|--|----------------|-----------------|
| 1  | List and explain the functional units of a computer.     | M1.01          | R               |
| 2  | Define EPROM.  | M1.05          | R               |
| 3  | Write short notes on flat panel displays.                | M2.05          | U               |
| 4  | Write short notes on SCSI.                               | M2.04          | U               |
| 5  | List the actions requires for execution of ADD (R3), R1. | M3.02          | R               |
| 6  | Summarize the features of Hardwire control Unit.         | M3.03          | U               |
| 7  | Define the terms (i) MDR (ii) MAR (iii) IR.              | M3.02          | R               |
| 8  | Draw the block diagram of microprogrammed control unit.  | M3.03          | U               |
| 9  | List any three segment registers of 8086 microprocessor. | M4.02          | R               |
| 10 | List any three features of Pentium processors.           | M4.03          | R               |

### PART C

**Answer all questions. Each question carries seven marks.**

**(6 x 7 = 42 Marks)**

|      |   | Module outcome | Cognitive level |
|------|---|----------------|-----------------|
| III  | Summarize the features of Optical Disks. List any three Optical Disks.  | M1.09          | U               |
|      | <b>OR</b>   |                |                 |
| IV   | Explain memory cell operations and write short note on synchronous DRAM.  | M1.05          | U               |
| V    | List the features of Read Only Memory, PROM, EPROM and Flash Memory.  | M1.05          | R               |
|      | <b>OR</b>   |                |                 |
| VI   | Explain the connection of memory to the processor.  | M1.04          | U               |
| VII  | Demonstrate Direct Memory Access as an I/O mechanism for high speed devices.  | M2.03          | U               |
|      | <b>OR</b>   |                |                 |
| VIII | Outline I/O interfacing with memory mapped I/O and Program controlled I/O.  | M2.01          | U               |
| IX   | Summarize the features of any three Standard Interfaces.  | M2.04          | U               |
|      | <b>OR</b>   |                |                 |
| X    | Describe the features of<br>(i) keyboard                      (ii) scanner                      (iii) Video Displays. | M2.05          | U               |
| XI   | Explain the micro operations for Fetching a word from memory.   | M3.02          | U               |
|      | <b>OR</b>   |                |                 |
| XII  | Outline the principle of Pipelining.  | M3.04          | U               |
| XIII | Summarize the features of Multicore Processors.   | M4.04          | U               |
|      | <b>OR</b>   |                |                 |
| XIV  | Illustrate the architecture of 8086 Microprocessor with a block diagram.  | M4.02          | U               |

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