

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER - 2024**

**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 ‘one’ marks.**

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

Module Outcome Cognitive level

1	.....register holds the instruction that is currently being executed	M1.02	R
2	State purpose of Memory Address Register(MAR)	M1.02	R
3	Name the method in which I/O device transfer data directly to or from the memory.	M2.03	R
4	Name the I/O interface that allows plug-and-play mode of operation	M2.04	R
5	The data stored in Memory Data Register(MDR) can be transferred either to memory or internal processor bus. True or False.	M3.01	U
6	The microroutines for all instructions in the instruction set of a computer are stored in a special memory called.....	M3.02	R
7	What is the purpose of Memory–Function–Completed(MFC) control signal?	M3.02	R
8	In 8086 microprocessor, which flag is set to perform step by step execution.	M4.02	R
9	The number of address lines in 8086 microprocessor is.....bits.	M4.02	R

**PART - B**

- II. Answer any eight questions from the following. Each question carries ‘Three’ marks.**

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

Module Outcome Cognitive level

1	Draw the diagram of single bus structure and briefly describe its working.	M1.03	R
2	Compare the characteristics of Flash Memory and EEPROM	M1.05	U
3	Differentiate polling and vectored interrupt system.	M2.02	U
4	List the features of Universal Serial Bus(USB) interface	M2.04	R
5	Explain the working of keyboard as an input device.	M2.05	U
6	Write the control signal sequence to read a word from memory.	M3.01	U
7	Briefly explain the concept of pipelining	M3.04	R

8	List the purpose of conditional flags available in 8086 Microprocessor.	M4.02	R
9	Define register addressing in 8086	M4.02	R
10	List the features of Pentium processor.	M4.03	R

### PART - C

**Answer all the questions from the following. Each question carries ‘seven’ marks.**

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

Module Outcome Cognitive level

III.	With a neat diagram, describe the functional units of a computer.	M1.01	R
<b>OR</b>			
IV.	Describe the concept of virtual memory	M1.08	R
V.	Explain the interconnection between processor and memory with block diagram	M1.02	U
<b>OR</b>			
VI.	Discuss the memory hierarchy considering the different factors like speed, size, and cost	M1.06	U
VII.	Illustrate I/O interfacing with program controlled I/O	M2.01	U
<b>OR</b>			
VIII.	Describe the interfacing using PCI bus.	M2.04	U
IX.	Describe about flat panel displays	M2.05	U
<b>OR</b>			
X.	Explain the input and output registers involved in ALU operation.	M3.01	U
XI.	Explain the execution of an instruction with an example.	M3.02	U
<b>OR</b>			
XII.	Explain the organization of hardwired control unit with the block diagram	M3.03	U
XIII.	Draw the internal block diagram of 8086 Microprocessor and explain the memory segmentation in 8086 Microprocessor.	M4.02	U
<b>OR</b>			
XIV.	Summarize the features of multi core Microprocessor.	M4.04	U

\*\*\*\*\*