TED (21)3151
(Revision – 2021)

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Reg. No……
Signature …….

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2023

COMPUTER SYSTEM ARCHITECTURE

[Maximum Marks: **75**] [Time: **3** Hours]

PART-A

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

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	A processor contains small high speed storage locations known as……..	M1.01	R
2.	SMPS stands for	M1.04	R
3.	Define POST.	M1.06	R
4.	List any two display device types.	M2.01	R
5.	……..is an example for sequential access memory	M2.04	R
6.	Instruction register holds…….	M3.02	R
7.	Define parallel processing.	M3.04	R
8.	List any two special purpose registers of 8086.	M4.02	R
9.	MOV AX, [BX] represents……addressing mode	M4.03	U

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.	Write notes on different CPU buses.	M1.03	R
2.	Distinguish between North bridge and South bridge.	M1.04	U
3.	List the functions of control unit.	M1.01	R
4.	Describe two input devices in laptops.	M1.05	R
5.	Explain any two printer types.	M2.01	R
6.	Describe Cache memory.	M2.03	U
7.	Distinguish between programmed I/O and interrupt-driven I/O	M2.02	U
8.	Write notes on semiconductor memory.	M2.04	R
9.	Write notes on functions of processor.	M3.01	R
10.	List arithmetic instructions in 8086.	M4.04	R

PART-C

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

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Compare Von Neumann and Harvard architecture.	M1.02	U
	OR		
IV.	Define motherboard form factor. Explain any two form factors.	M1.04	R
V.	Describe Direct Memory Access.	M2.02	U
	OR		
VI.	Describe the memory hierarchy with a diagram.	M2.03	U
VII.	Explain control and status registers.	M3.01	R
	OR		
VIII.	Describe microprogrammed control unit with a neat diagram.	M3.02	U
IX.	Describe dataflow diagrams for fetch and interrupt cycles.	M3.03	U
	OR		
X.	Explain Flynn's classification of parallel processing system.	M3.04	R
XI.	Explain Execution Unit of 8086 with a neat diagram.	M4.02	U
	OR		
XII.	Write an assembly language program to check whether a number is odd or even.	M4.04	U
XIII.	Define microprocessor and explain the features of 8086.	M4.01	R
	OR		
XIV.	Write an assembly language program to add two 8 bit numbers.	M4.04	U

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