N22-2110220188

Reg.No……………….............
Signature. ....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE – NOVEMBER - 2022

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 1 mark.

(9x1=9 marks)

		Module Outcome	Cognitive level
1	The interface between motherboard and an external device is called----------	M1.03	R
2	List any two pointing devices of a laptop.	M1.05	R
3	BIOS stands for--------------	M1.06	R
4	The method which offers higher speeds of I/O transfer is--------	M2.02	U
5	Define cache memory.	M2.03	R
6	List registers involved in fetch operation.	M3.01	R
7	------is the number of instructions that can be executed in unit time.	M3.04	R
8	Intel 8086 is a-------------bit microprocessor.	M4.01	R
9	List any two data transfer instructions.	M4.04	R

PART - B

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

(8x3=24marks)

		Module Outcome	Cognitive level
1	Explain Von Neumann architecture.	M1.02	U
2	Write notes on control bus.	M1.03	U
3	Explain the features of laptop processors and memory.	M1.05	R
4	Describe the steps involved in booting process.	M1.06	R
5	Explain program controlled I/O	M2.02	U
6	List the key characteristics of memory systems.	M2.03	R
7	Describe different levels of cache memory.	M2.04	U
8	Compare SRAM and DRAM	M2.04	U
9	Write notes on user-visible registers.	M3.01	U
10	Describe the flag registers of 8086	M4.02	R

PART - C

Answer **all** questions from the following. Each question carries 7 marks.

(6x7=42marks)

			Module Outcome	Cognitive level
III	Explain functional units of a computer with a block diagram.		M1.01	R
	OR			
IV	Compare the features of IDE and SATA hard disk connectors.		M1.04	U
V	Explain any three input devices.		M2.01	R
	OR			
VI	Distinguish between sequential, random and direct storage access methods.		M2.04	U
VII	Explain structure and functions of processor.		M3.01	R
	OR			
VIII	Explain instruction pipelining		M3.04	U
IX	Describe hardwired control unit with a neat diagram.		M3.02	U
	OR			
X	Explain classification of parallel processing systems.		M3.04	U
XI	Explain addressing modes of 8086 with examples.		M4.03	R
	OR			
XII	Write an assembly language program to multiply two 8 bit numbers.		M4.04	U
XIII	Explain the internal architecture of 8086.		M4.02	U
	OR			
XIV	Write a program to find the factorial of a number.		M4.04	U

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