K. J. Somaiya Institute of Technology, Sion, Mumbai-22 (Autonomous College Affiliated to University of Mumbai)

May-June 2024

B. Tech. Program: AIDS Scheme I/II/IIB/III: IB Regular Examination: SY Semester: IV

Course Code: AIC405 and Course Name: Microprocessor

Date of Exam: 24.05.24 Duration: 02.5 Hours Max. Marks: 60

Instructions:

(1) All questions are compulsory.

(2) Draw neat diagrams wherever applicable.

(3) Assume suitable data, if necessary.

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	K. J. Someiya Institute of Technology, Slon, Wambai-22 (Autonomous College Affiliated to University of Mumbai)	Max. Marks	СО	BT level
Q 1	Solve any six questions out of eight:	12		
i)	How to calculate Microprocessor maximum memory capacity from address lines? B. Tech. Program: Echame L.L./113/LIII Exquiration: SY Semester: IX	2	CO1	U
i)ate	What is meant by backward compatibility of 8086? Lours	M. Ma	rlGO20	U
iji) _{stru} (1) All	List Highest and second highest priority interrupts in 8086 questions are compulsory.	2	CO3	U
(2) Dra (v) Ass	What is the function of the system clock signal in the 8086 microprocessor, and how is it generated?	2	CO4	U
v)	What is the function of PPI	Marks	005	UBT leve
(i)1	What is the memory capacity of Pentium microprocessor	2	CO6	U
vii)	Describe instruction que in 8086	2	CO1	U
Miii)	What is mixed mode programming ability of 8036?	2	CO2	U
Q.2	Solvelany four questions out of six rry interrupts in 8036	16	cos	U
i)))	List and explain in brief the data movement commands for 8086.	4	CO2	U
ii)	List registers in 8086 Microprocessors, give typical use of each of them	4	CO1	Rem
vi)	What is the memory capacity of Pentium n 1 of 2 ocessor		CO6	U
vii)	Describe instruction que in 8086	the engineer was a light of the engineer of th	CO1.	V
	What is mixed mode programming	Part Control Control Control	A (1980) 1	l U

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iii)	Write a short note on IVT	4	CO2	U
iv)	What are procedures and macros in programming, and how do they differ?	+	CO3	U
v)	What is the superscalar architecture of the Pentium microprocessor [13]	4	CO4	U
vi)	How handshaking is achieved in PPI B. Tech. Program: Scheme L'U/HB/(H):	4	CO5	U.
Q.3	Solve any two questions out of three; and Course Name. Microprocessor of Exam: Duration: 02.5 Hours	. 16 Max. Via	rke 60	U
i)	Design 8086 based system with following specifications: a. 8086 in minimum mode b. 64 KB RAM using 32 KB devices	8	C02_	Ар
ii)	Explain operating modes of PIC 8259	8	CØ5	U
iii)	What are procedures and insures in programming and low to they differ? What are the advantages and disadvantages of using memory-mapped I/O compared to port-mapped I/O?	8	C04	Ü
Q.4	Solve any two questions out of three.	16	004	Ü
)	Describe the architecture of 8086 microprocessor with help of a neat sketch	3	CO1	U
i)	How do interrupts operate in the 8086 processor architecture, and what role do they play in program execution?	8	CB	U-
ii)	Discuss the concept of pipelining and how it is implemented in Pentium microprocessor RA VI using 32 KB devices	8	COZ	ÅP U
	Explain operating modes of PIC 8529	COS	A had of the control will be a control	U
	What are the advantages and disacvantages of using memory-mapped L'O compared to port-mapped L'O?	CC4	Provide the second second	
J. 1	Solve any two questions out of three. Page 2 of 2	11	Manual Language or per har some	U
	Describe the architecture of 8086 microprocessor with help of a next sketch	CC1	there is forest former the comment	U
	How do interrupts operate in the 80% processor are litecture, and what role do they play in program execution?	CC3	register and the control of the cont	Ú
	Discuss the appear of sing injuryers in the same transfer in D. C.		Marie Constitue de Militario de	odort tiple in color e place to great or