



**Shri Shankaracharya Institute of Professional Management & Technology**

**Department of Computer Science & Engineering**

Class Test – I Session- July– Dec, 2023

**B.Tech Sem- 5<sup>th</sup> A+B Subject— Microprocessors & Interfaces - C022511(022)**

Time Allowed: 2 hrs Max Marks: 40

Note: - *Qusetion 1 is compulsory and attempt any two from Q2,Q3 and Q4 from each Unit.*

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
Unit 1				
Q1.	What is interrupt?	[4]	Understanding	CO1
Q2.	Explain Harvard and Princeton architecture with diagram.	[8]	Analyzing	CO1
Q3.	Give comparison between 8085 and 8088 microprocessor	[8]	Analyzing	CO1
Q4.	Explain pin diagram of 8085 microprocessor	[8]	Applying	CO1
Unit 2				
Q1.	Define Memory banking concept of 8086 microprocessor	[4]	Understanding	CO2
Q2.	Explain BIU and EU of 8086 microprocessor	[8]	Applying	CO2
Q3.	What are different addressing modes used in 8086 microprocessor	[8]	Applying	CO2
Q4.	Explain Pin diagram of 8086 Microprocessor	[8]	Applying	CO2



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Q2.	Explain BIU and EU of 8086 microprocessor	[8]	Applying	CO2
Q3.	What are different addressing modes used in 8086 microprocessor	[8]	Applying	CO2
Q4.	Explain Pin diagram of 8086 Microprocessor	[8]	Applying	CO2



Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science Engineering

Class Test – I Session- July-Dec, 2023 Month- October

Sem- CSE (C) 5<sup>th</sup> Subject- Microprocessor & Interfacing C022511(22)

Time Allowed: 2 hrs Max Marks: 40

Note: - Q.1 is compulsory and attend any 4 from 2,3,4,5,6.

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	(1) Why 8085 microprocessor can not have more than 256 instruction? (2) Difference between 8085 & 8086 microprocessor. (3) Explain flag register of 8085 microprocessor with dig.	[8]	Apply & Understanding	CO1
2.	Explain Bus Interfacing Unit (BIU) & Execution Unit (EU) of 8086 microprocessor	[8]	Understanding	CO2
3.	Explain following instruction (1) CWD (2) XLAT (3) AAA (4) LEA (5) CMP (6) POP (7) SHL (8) PUSHF	[8]	Understanding	CO2
4.	Explain Harvard & Princeton architecture with proper dig.	[8]	Understanding	CO1
5.	Explain architecture of 8088 microprocessor.	[8]	Understanding	CO1
6.	(1) MOV AX, 12DAh MOV BX, 3F24h For above prog.use instruction <b>MUL, NEG AX, XOR BX</b> and <b>SAR BX, 03</b> to perform the operation stepwise (2) MOV AL,73h MOV BL, 29h ADD AL, BL DAA Tell the steps how the operation is performed in this prog. & what are affected flags.	[8]	Apply	CO2



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**Department of Computer Science & Engineering**

Class Test – I Session- July-December, 2023 Month- November

Sem- CSE 5<sup>th</sup> (Sec- A,B&C) Subject- Computer Networks Code- C022512(022)

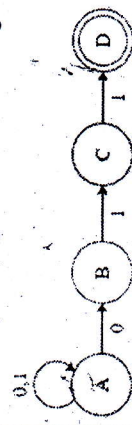
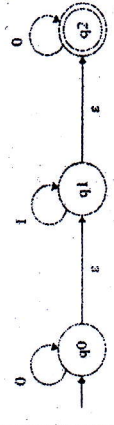
Time Allowed: 2 hrs Max Marks: 40

Note: - All questions are compulsory and carries equal marks..

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
Q1	Describe all functions of TCP/IP Protocol suite with diagram	[8]	Understanding	CO1
Q2	Evaluate all three categories of multiplexing with help of diagram a) Frequency Division Multiplexing b) Wavelength Division Multiplexing c) Time Division Multiplexing	[8]	Evaluating	CO1
Q3	Distinguish following Networking devices a) Modem b) Router c) Switch d) Hub	[8]	Analyzing	CO1
Q4	Diffrentiate following protocols with neat diagram . a) Controlled Access Protocols b) Channelization Protocols OR Discuss and solve any error detection and correction method with suitable example.	[8]	Understanding /Creating	CO2
Q5	Illustrate various features of following: a) ARP b) RARP c) DHCP d) Wireless Lan	[8]	Understanding	CO2

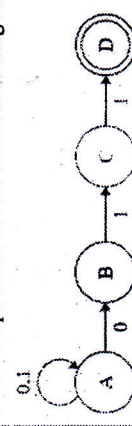
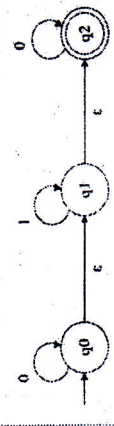



Note: - Attempt any five Questions.


Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs																								
1.	In each part below, design a DFA accepting the indicating language over the alphabet $\Sigma \{0, 1\}$ 1. Every string starts and ends with a different symbol.	[8]	Apply	CO1																								
2.	2. All the strings start with "ab" and the length is $\equiv 2 \pmod{4}$ . Design DFA to accept decimal numbers are divisible by 3. $\Sigma = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9\}$ Minimize the given DFA.	[8]	Apply	CO1																								
3.	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>State</th> <th colspan="2">Input</th> </tr> <tr> <td></td> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td><math>\rightarrow q1</math></td> <td>q6</td> <td>q3</td> </tr> <tr> <td>q2</td> <td>q5</td> <td>q6</td> </tr> <tr> <td>q3*</td> <td>q4</td> <td>q5</td> </tr> <tr> <td>q4*</td> <td>q3</td> <td>q2</td> </tr> <tr> <td>q5</td> <td>q2</td> <td>q1</td> </tr> <tr> <td>q6</td> <td>q1</td> <td>q4</td> </tr> </tbody> </table>	State	Input			a	b	$\rightarrow q1$	q6	q3	q2	q5	q6	q3*	q4	q5	q4*	q3	q2	q5	q2	q1	q6	q1	q4	[8]	Apply	CO1
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4.	Find the equivalent DFA from the following NFA. 	[8]	Apply	CO1																								
5.	Find the equivalent NFA from the following NFA - $\epsilon$ . 	[8]	Apply	CO1																								
6.	Write the Regular Expression to denote language $L = \{a^n b^m : (n + m) \text{ is even}\}$ .	[8]	Apply	CO2																								



Note: - Attempt any five Questions.

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs																								
1.	In each part below, design a DFA accepting the indicating language over the alphabet $\Sigma \{0, 1\}$ 3. Every string starts and ends with a different symbol.	[8]	Apply	CO1																								
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 <b>Shri Shankaracharya Institute of Professional Management &amp; Technology</b> Department of Computer Science & Engineering Session- JULY-DEC 2023 Subject- Data Analytics with Python Time Allowed: 2 hrs Max Marks: 40 Class Test - I Sem- CSE 5 <sup>th</sup> (A,B,C) Course Code: C022514(022) Month-November				
Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
Q1	Differentiate between List and Tuple with example.	[8]	Understanding	CO1
Q2	Write code for following List operation- 1. Check if the item exist. 2. Change item value. 3. Change range of itrne values. 4. Insert item values. 5. Remove item values.	[8]	Applying	CO1
Q3	Write command for the following- 1. Create a dictionary with 5 key value pair and also write a command to print only the keys. 2. Write code to print- * * * * * * * * * * * * * *	[8]	Applying	CO1
Q4	Describe Numpy. Create a 2D array and write code to slice it with example.	[8]	Applying	CO2
Q5	Define Broadcast in Numpy along with its rules and example.	[8]	Applying	CO2

 <b>Shri Shankaracharya Institute of Professional Management &amp; Technology</b> Department of Computer Science & Engineering Session- JULY-DEC 2023 Subject- Data Analytics with Python Time Allowed: 2 hrs Max Marks: 40 Class Test - I Sem- CSE 5 <sup>th</sup> (A,B,C) Course Code: C022514(022) Month-November				
Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
Q1	Differentiate between List and Tuple with example.	[8]	Understanding	CO1
Q2	Write code for following List operation- 6. Check if the item exist. 7. Change item value. 8. Change range of itrne values. 9. Insert item values. 10. Remove item values.	[8]	Applying	CO1
Q3	Write command for the following- 3. Create a dictionary with 5 key value pair and also write a command to print only the keys. 4. Write code to print- * * * * * * * * * * * * * *	[8]	Applying	CO1
Q4	Describe Numpy. Create a 2D array and write code to slice it with example.	[8]	Applying	CO2
Q5	Define Broadcast in Numpy along with its rules and example.	[8]	Applying	CO2

Note: - All the questions are compulsory.



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**Department of Computer Science & Engineering**

Class Test – I Session- July– Dec, 2023 Month-Oct-2023

Sem- CSE 5<sup>th</sup> A,B&C Subject- Computer Graphics and Multimedia Code-C022531(022)

Time Allowed: 2 hrs Max Marks: 40

Note: - 1. All Questions are Compulsory

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
Q1	Discuss the working of Raster scan system in detail ?	[8]	Understanding	CO1
Q2	Apply Bresenham's Line drawing algorithm and draw a line between points (9,18) and (14,22)	[8]	Applying	CO1
Q3	Compare the Boundary Fill and flood fill Algorithm using suitable Example	[8]	Analysis	CO1
Q4	Apply midpoint circle algorithm find out the coordinates of a circle whose radius $r=10$ ?	[8]	Applying	CO1
Q5	Discuss Basic types of 2-D transformation and generate its matrices	[8]	Understanding	CO2