Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science & Engineering

Class Test – I Session- Jan– June, 2021 Month-May

Sem- CSE 5th Subject- Computer Graphics and **Code-**C022531(022)

Time Allowed: 2 hrs Max Marks: 40

*Note: - 1. **PART1 is Compulsory and Attempt any 4 questions from PART2.***
*2. **Each question of PART1 carries 2 Marks and 8 marks for PART2.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
	PART I			
Q1	Discuss the stuation in which Staircase problem may occurs in Display	[2]	Remembering	CO1
Q2	Give a focus on major differences in DDA and Bresenham's line drawing algorithm	[2]	Remembering	CO1
Q3	Define trem "Aspect Ratio" and "Resolution" in context of display devices	[2]	Remembering	CO1
Q4	In cathode Ray Tube (CRT) , discuss the function of anode plates	[2]	Remembering	CO1
	PART II			
Q1	Draw a line from (1,1) to (8,7) using Bresenham's Line Drawing Algorithm	[8]	Applying	CO1
Q2	Consider a cuboid which intersects x-axis at 2 unit distance and y and z axis at 1 unit distance , rotate the cuboid about x-axis and findout the new coordinates of object.	[8]	Applying	CO2
Q3	Compare the Boundary Fill and flood fill Algorithm using suitable Example.	[8]	Analysis	CO1
Q4	Using midpoint circle algorithm find out the coordinates of a circle whose radius r=10	[8]	Applying	CO1
Q5	Discuss window to view port transformation with suitable Example	[8]	Understanding	CO2

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Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science & Engineering

Class Test – I Session- July – Dec, 2021 Month-OCT

Sem- CSE 5th (Section A & B)

Subject- Computer Networks; Code- C022512(022)

Time Allowed: 2 hrs Max Marks: 40

Note: - ***Question A & B is mandatory and Attempt any two questions from C,D &E in each part.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
	PART I			
QA	List out the features of FTP and its operations.	[2]	Remembering	CO1
QB	Make diffence between Hub,Switch & Router.	[2]	Remembering	CO1
QC	Describe seven layer OSI architecture model.	[8]	Evaluating	CO1
QD	Describe various transmission media in computer networks.	[8]	Remembering	CO1
QE	Discuss the working of Multiplexing and its types.	[8]	Understanding	CO1
	PART II			
QA	List out various features of ARP and its operations.	[2]	Remembering	CO2
QB	Define the term UDP explain its working in brief.	[2]	Understanding	CO1
QC	Illustrate TCP/IP reference model with a neat diagram.	[8]	Understanding	CO1
QD	Define the term demultiplexing and solve- Five channels, each with a 100-kHz bandwidth, are to be multiplexed together. What is the minimum bandwidth of the link if there is a need for a guard band of 10 kHz between the channels to prevent interference?	[8]	Understanding & Evaluating	CO2
QE	Define the term framing and Explain any one techniques used for farming.	[8]	Understanding	CO2

Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science & Engineering

Class Test – I Session- July – Dec, 2021 Month-OCT

Sem- CSE 5th (Section A & B)

Subject- Computer Networks; Code- C022512(022)

Time Allowed: 2 hrs Max Marks: 40

Note: - ***Question A & B is mandatory and Attempt any two questions from C,D &E in each part.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
	PART I			
QA	List out the features of FTP and its operations.	[2]	Remembering	CO1
QB	Make diffence between Hub,Switch & Router.	[2]	Remembering	CO1
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Shri Shankaracharya Institute of Professional Management & Technology
Department of Computer Science & Engineering
Class Test – I Session- July – Dec, 2021 Month- October
Sem- CSE 5th (A & B) Subject- Microprocessor and Interface Code- C022511(022)
Time Allowed: 2 hrs Max Marks: 40

Note: - ***Attempt any 5 question. All questions carry equal marks.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Explain register organization of 8085 microprocessor.	[8]	Remember	CO1
2.	Describe the following pins of 8085 microprocessor. i).ALE (ii). SOD & SID (iii). HOLD and HLDA (iv).Ready	[8]	Understand	CO1
3.	Explain the memory segmentation in 8086 Microprocessor.	[8]	Remember	CO2
4.	Explain the following instructions of 8086 microprocessor with example. i).MUL ii) XCHG iii) LDS/LES iv)PUSH v) POP vi)DAA vii)CMP vii) DIV	[8]	Understand	CO2
5.	Describe the addressing modoes of 8086 microprocessor.	[8]	Understand	CO2
6.	Write an ALP to add a data byte located at offset 0110H in 4000H segment to another segment to another data byte available at 0220H in the same segement and stote the result at 0440H in the same segment.	[8]	Apply	CO2

Shri Shankaracharya Institute of Professional Management & Technology
Department of Computer Science & Engineering
Class Test – I Session- July – Dec, 2021 Month- October
Sem- CSE 5th (A & B) Subject- Microprocessor and Interface Code- C022511(022)
Time Allowed: 2 hrs Max Marks: 40

Note: - ***Attempt any 5 question. All questions carry equal marks.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Explain register organization of 8085 microprocessor.	[8]	Remember	CO1
2.	Describe the following pins of 8085 microprocessor. i).ALE (ii). SOD & SID (iii). HOLD and HLDA (iv).Ready	[8]	Understand	CO1
3.	Explain the memory segmentation in 8086 Microprocessor.	[8]	Remember	CO2
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Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science & Engineering

Class Test – I | Session- JULY-DEC 2021 | Month-October

Sem- CSE 5th | **Subject- Data Analytics with Python** | **Course Code: C022514(022)**

Time Allowed: 2 hrs Max Marks: 40

Note: - Questions 1 from PART I & PART II are compulsory and Attempt any two from Question 2,3,4

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
	PART I			
Q1	Write 5 applications of data analytics.	[4]	Understanding	CO1
Q2	Illustrate the characteristics of python in data analytics.	[8]	Remembering	CO1
Q3	Write command for the following- 1. Create a dictionary w.ith 5 key value pair and also write a command to print only the keys. 2. Write code to print- * * * * * * * * * * * * * * *	[8]	Applying	CO1
Q4	Explain file handling in python with a suitable example.	[8]	Applying	CO1
	PART II			
Q1	Discuss the different data analysis tools available now a days.	[4]	Understanding	CO2
Q2	Write difference between quantitative and qualitative data analsysis.	[8]	Applying	CO2
Q3	Explain the data analysis process with proper block diagram.	[8]	Applying	CO2
Q4	Discuss the different types of data.	[8]	Remembering	CO2

Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science & Engineering

Class Test – I | Session- JULY-DEC 2021 | Month-October

Sem- CSE 5th | **Subject- Data Analytics with Python** | **Course Code: C022514(022)**

Time Allowed: 2 hrs Max Marks: 40

Note: - Questions 1 from PART I & PART II are compulsory and Attempt any two from Question 2,3,4

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
	PART I			
Q1	Write 5 applications of data analytics.	[4]	Understanding	CO1
Q2	Illustrate the characteristics of python in data analytics.	[8]	Remembering	CO1
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Shri Shankaracharya Institute of Professional Management & Technology

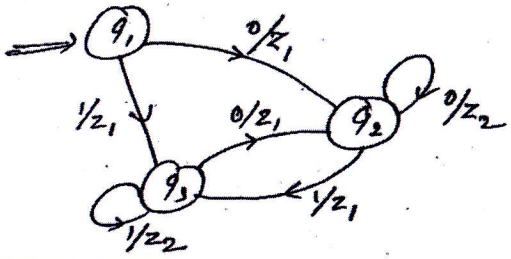
Department of Computer Science & Engineering

Class Test – I Session- July – Dec, 2021 Month- Oct- Nov

Sem- CSE 5th Subject- Formal Languages and Automata Theory **Code-** C022513(022)

Time Allowed: 2 hrs Max Marks: 40

*Note: - **All questions from PART1 and PART2 are compulsory. Each question of PART1 carries 2 Marks and 8 marks for PART2***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
	PART I			
Q1	Define the various finite automata models.	[2]	Remembering	CO1
Q2	Differentiate Σ^* and Σ^+.	[2]	Understanding	CO1
Q3	Define epsilon-NFA.	[2]	Remembering	CO1
Q4	The regular expression $(P+Q)^*$ is equal to (Choose correct option) (i) $(P^* + Q^*)$ (ii) (P^*Q^*) (iii) $(P^* + Q^*)^*$ (iv) $P(P^*Q^*)Q$	[2]	Applying	CO2
	PART II			
Q1	Construct a minimum state automata equivalent to following automat whose transition table is given below: State/Inputs | a | b → q0 | q0 | q3 q1 | q2 | q5 q2 | q3 | q4 q3 | q0 | q5 q4 | q0 | q6 q5 | q1 | q4 (q6) | q1 | q3	[8]	Creating	CO1
Q2	Consider the mealy machine shown is following tranition diagram. Construct equivalent Moore Machine. 	[8]	Creating	CO1
Q3	Construct DFA with reduced state equivalent to the regular expression 10+(0+11)0*1.	[8]	Creating	CO1
Q4	Show that L={a^p | p is a prime } is a non regular language using pumping lemma property.	[8]	Applying	CO2

Shri Shankaracharya Institute of Professional Management & Technology

Department of Computer Science & Engineering

Class Test – I Session- July – Dec, 2021 Month- Oct- Nov

Sem- CSE 5th Subject- Formal Languages and Automata Theory **Code-** C022513(022)

Time Allowed: 2 hrs Max Marks: 40

*Note: - **All questions from PART1 and PART2 are compulsory. Each question of PART1 carries 2 Marks and 8 marks for PART2***

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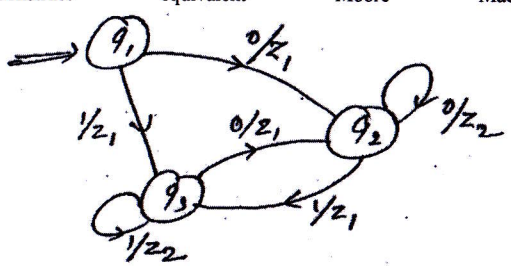
Q2	Consider the mealy machine shown is following tranition diagram. Construct equivalent Moore Machine. 	[8]	Creating	CO1
Q3	Construct DFA with reduced state equivalent to the regular expression 10+(0+11)0*1.	[8]	Creating	CO1
Q4	Show that L={a^p | p is a prime } is a non regular language using pumping lemma property.	[8]	Applying	CO2