



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

**Department of Computer Science & Engineering**

Class Test – II Session- July– Dec, 2021 Month-December

**Sem- CSE 5<sup>th</sup> Subject- Computer Graphics (Professional Elective-I) Code-CO22531(022)**

Time Allowed: 2 hrs Max Marks: 40

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

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
<b>PART I</b>				
For approximation type curve				
Q1	(a) Strength of pull for all the control points should be 1 (b) Strength of pull of all the control points should be less than 1 (c) Strength of pull of atleast one control points should be less than 1 (d) All the control points must have same strength of pull.	[2]	Remembering	CO4
Q2	Discuss the concept of morphing in animation	[2]	Remembering	CO5
Q3	Generate parametric equation of a circle.	[2]	Remembering	CO4
Q4	In z-buffer algorithm what is the initial value of depth buffer ( $Z_{depth}$ ) and surface buffer ( $I_{surf}$ ) that are used to store depth and surface intensity of a pixel $p(x,y)$ respectively (a) $Z_{depth}=0, I_{surf}=1$ (b) $Z_{depth}=0, I_{surf}=\text{surface Intensity}$ (c) $Z_{depth}=0, I_{surf}=1$ (d) $Z_{depth}=0, I_{surf}=\text{Background Intensity}$	[2]	Remembering	CO3
<b>PART II</b>				
Q1	Draw a Bezier curve of order 3, with 4 control points A(1,1), B(2,3), C(4,3) & D(6,4)	[8]	Applying	CO4
Q2	Find the intersection point of a line PQ, P(10,30), Q(80,90) against a window whose lower left corner is at (20,20) and upper right corner is at (90,70).	[8]	Applying	CO3
Q3	Describe various properties of B-Spline Curve.	[8]	Understanding	CO4
Q4	Define Animation. discuss the sequence of steps to generate an animation	[8]	Understanding	CO5
Q5	Give a focus on working principle of depth sort method	[8]	Understanding	CO3



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Class Test – II Session- July – Dec, 2021 Month- December

Sem - CSE 5<sup>th</sup> Subject- Formal Languages and Automata Theory Code- CO22513(022)

Time Allowed: 2 hrs Max Marks: 40

Note: - All questions from PART I and PART II are compulsory. Each question of PART I carries 2 Marks and 8 marks for PART II

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
<b>PART I</b>				
Q1	Define derivation and language.	[2]	Remembering	CO3
Q2	Write the name of different types of grammar .	[2]	Remembering	CO3
Q3	Define Npda and Dpda.	[2]	Remembering	CO4
Q4	Write definition of Push Down Automata?	[2]	Remembering	CO4
<b>PART II</b>				
Q1	Explain Chomsky classification of grammar?	[8]	Understanding	CO3
Q2	$E \rightarrow E+T/T$ , $T \rightarrow T^*F/F$ , $F \rightarrow (E)/a$ . Convert this grammar into GNF.	[8]	Applying	CO3
Q3	Design a PDA which accepts a language: $L = \{a^n b^{3n} / n \geq 1\}$ .	[8]	Creating	CO4
Q4	Design a TM that accepts: $L = \{0^n 1^n \mid n \geq 1\}$ .	[8]	Creating	CO4



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Class Test – II Session- JULY-DEC 2021 Month-December

Sem- CSE 5<sup>th</sup> Subject- Data Analytics with Python Course Code: C022514(022)

Time Allowed: 2 hrs Max Marks: 40

Note: - All questions from PART I are compulsory and Attempt any 4 from PART II

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	Cos
<b>PART I</b>				
Q1	Illustrate vectorization with a suitable example	[4]	Understanding	CO3
Q2	Explain the concept of broadcasting with a suitable example.	[8]	Remembering	CO3
Q3	Briefly describe the stacked array in numpy. Give a suitable example to show the concept of stacked array.	[8]	Applying	CO3
Q4	Write code for following functions- 1) append() 2) pop() 3) copy() 4) extend()	[8]	Understanding	CO3
<b>PART II</b>				
Q1	Illustrate matplotlib library.	[4]	Understanding	CO5
Q2	Explain the legends in a plot. Also write code for following- 1) To change the locations of a legend. 2) To create multiple legends. 3) To change the colors of legend items.	[8]	Applying	CO5
Q3	Write a program to set the different properties of a plot.	[8]	Applying	CO5
Q4	Explain the pie chart. Also write code for bar chart in horizontal orientation.	[8]	Remembering	CO5



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Class Test – II Session- JULY-DEC 2021 Month-December

Sem- CSE 5<sup>th</sup> Subject- Data Analytics with Python Course Code: C022514(022)

Time Allowed: 2 hrs Max Marks: 40

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Class Test – II Session- July – Dec, 2021 Month-DEC

Sem - CSE 5<sup>th</sup> (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
<b>PART I</b>				
QA	Draw and explain in brief about Flow control	[2]	Understanding	CO4
QB	Make Differentiate between TCP and UDP.	[2]	Remembering	CO4
QC	Describe the basic services provided by the transport layer?	[8]	Understanding	CO4
QD	Define the term IPv4 and IPv6? Explain its working in detail	[8]	Remembering	CO3
QE	In classfull addressing how is an IP address in class A, Class B and Class C divided?	[8]	Understanding	CO3
<b>PART II</b>				
QA	Draw the architecture of message mail format.	[2]	Remembering	CO5
QB	Discuss simple mail transfer protocol	[2]	Understanding	CO5
QC	Draw and explain the architecture of application layer	[8]	Understanding	CO5
QD	Define firewall.explain different types of firewall.	[8]	Understanding	CO5
QE	Define the term cryptography and explain its various types in detail.	[8]	Understanding	CO5



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Class Test – II Session- July – Dec, 2021 Month-DEC

Sem - CSE 5<sup>th</sup> (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
<b>PART I</b>				
QA	Draw and explain in brief about Flow control	[2]	Understanding	CO4
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Class Test – II Session- July – Dec, 2021 Month-December

Sem- CSE 5<sup>th</sup> (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 maximum mode system block diagram of 8086 and also draw its read and write cycle timing diagram?	[8]	Understanding	CO3
2.	Write a program to find largest number from a block of 20 bytes. Starting memory location of the byte stored is 2000H: 0400H.	[8]	Applying	CO3
3.	Explain interrupt structure of 8086 microprocessor in detail with Interrupt vector table?	[8]	Understanding	CO3
4.	Interface two chips of 32K*8 ROM and four chips of 32K*8 RAM with 8086, according to the following maps ROM1 and ROM 2 F0000H-FFFFH RAM 1 and RAM 2 D0000H-DFFFFH RAM 3 and RAM 4 E0000H-EFFFFH	[8]	Applying	CO4
5.	Explain architecture of DMA and also explains its operating modes?	[8]	Remembering	CO4
6.	Draw the architecture of 8254 and explain its control word register?	[8]	Understanding	CO4



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Class Test – II Session- July – Dec, 2021 Month-December

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Time Allowed: 2 hrs Max Marks: 40

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