



Shri Shankaracharya Institute of Professional Management & Technology

Department of Information Technology

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

Semester- IT 3rd Subject- : Computer Networks Code-: B033314(033)

Time Allowed: 2 hrs Max Marks: 40

Note: -Answer any 5 questions.

Q.N.	Questions	Marks	Levels of Bloom's Taxonomy	COs
1.	Explain with diagrams different network topologies.	[8]	Understand	CO1
2.	What are different switching networks ? Elaborate Datagram Network.	[8]	Apply	CO2
3.	Describe the OSI Model with a diagram.	[8]	Understand	CO1
4.	Find the value of throughput in Pure ALOHA and impure ALOHA , When a network transmits 200-bit frames on a shared channel of 200 kbps. Consider that the system (all stations together) produces 500 frames per second.	[8]	Apply	CO2
5.	What is CSMA? Explain different Persistence Method.	[8]	Understand	CO1
6.	Name the techniques used for error detection in Data Link Layer. Let the Data word to be sent is 100100, generator polynomial used by the sender and receiver is $x^3 + x^2 + 1$. Find the encoded data to be sent using CRC.	[8]	Apply	CO2

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

**Sem- IT 3rd Subject- Computer Architecture Organization and Microprocessor
Code- B033312(033)**

Time Allowed: 2 hrs Max Marks: 40

Note: Question 1 to 5 is compulsory, Carry 2 marks each.

Attempt any 5 from question 6 to 11. All carry 6 marks.

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
Unit I				
1	Write the six stages in instruction pipeline.	[2]	Understanding	CO4
2.	Write micro programmed control unit organization with working.	[2]	Understanding	CO4
3.	What do you mean by divide overflow with proper example.	[2]	Understanding	CO1
4.	Solve the following using 2's complement method- 10110-11001=?	[2]	Understanding	CO3
5.	Convert the following numbers – (i) $(01A01)_{16} = (----)_2$ (ii) $(01501)_8 = (-----)_{16}$	[2]	Applying	CO2
6.	Multiply the signed numbers by using Booth's Algorithm $(-32)*64$.	[6]	Applying	CO4
7.	Write Division Algorithm with proper Example.	[6]	Applying	CO4
8.	Multiply the unsigned numbers using Hardware Implementation Algorithm $14 * 5$.	[6]	Understanding	CO3
9.	Describe Different addressing mode in computer architecture with suitable example.	[6]	Applying	CO5
10	What is the need of stack in architecture. How register stack and memory stacks execute its operation.	[6]	Understanding	CO1
11	Write flow chart of addition and subtraction of two fixed point signed magnitude with proper example.	[6]	Understanding	CO1

Shri Shankaracharya Institute of Professional Management & Technology, Raipur

Department of Information Technology



Class Test -01

Session- July-Dec 2021

Month-Nov

Sem- 3rd

Subject: Object Oriented Concepts &

Programming using JAVA (B033313 (033))

Time Allowed: 2 hrs.

Max Marks: 40

Attempt any 5 questions. All questions carry equal marks.

Q. No.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Describe the working of JVM. How does JVM offer security to Java program?	[8]	Understanding	CO1
2.	Write a program to accept a number from user and print the number in reverse order. Also find the sum of all digits in the number.	[8]	Apply	CO1
3.	Describe constructor? Write a program to demonstrate the concept of constructor overloading.	[8]	Apply	CO2
4.	Describe the wrapper classes with suitable example.	[8]	Apply	CO1
5.	Short notes on a) Data types in Java b) Garbage collection in Java	[8]	Understanding	CO1
6.	Brief discussion on the concept of "this" in java.	[8]	Reminder	CO2