Date: **Reg.No:**

FRANCIS XAVIER ENGINEERING COLLEGE
(An Autonomous Institution)
Tirunelveli-627003
Department of Computer Science and Engineering
CONTINUOUS ASSESSMENT TEST -II
Month & Year: November & 2022
Year/ Semester: Third Year/ Fifth Semester
Academic Year: 2022-2023/ODD
Course Code/Title: 19CS5602 COMPUTER NETWORKS
(Regulation 2019)

Time: Three hours **Maximum: 100 Marks**

Answer ALL Questions

PART – A (10 x 2 = 20 Marks)

Q.No	Question	Max. Marks	CO-K Level	PO-PI Code
1.	What do you mean by reliable flooding?	2	CO3-K2	2.2.4
2.	Explain why most of the addresses in class A are wasted. Explain why a medium-size or large-size corporation does not want a block of class C addresses.	2	CO3-K4	2.2.4
3.	What are the advantages of using UDP over TCP?	2	CO4-K2	1.3.1
4.	What do you mean by QoS? Also infer how to improve QoS.	2	CO4-K2	1.3.1
5.	Suppose a TCP connection is transferring a file of 5000 bytes. The first byte is numbered 10001. What are the sequence numbers for each segment if data is sent in five segments, each carrying 1000 bytes?	2	CO4-K3	2.2.3
6.	List the services of end to end services.	2	CO4-K2	1.3.1
7.	Define Persistent and Non-persistent connections.	2	CO5-K2	2.2.3
8.	Write short notes on the protocols used for email security.	2	CO5-K2	2.2.3

9.	Define DNS.	2	CO5-K2	2.2.3
10.	Analyze the requirements of Cryptographic algorithms.	2	CO5-K4	2.2.4

PART – B (5 x 13 = 65 Marks)

Q.No.	Question	Max. Marks	CO-K Level	PO-PI Code
11 (a)	Is RIP an interdomain or intradomain routing protocol? Explain.	13	CO3-K4	2.2.2
	(Or)			
(b)	Describe the message types of ICMP in detail with the message format.			
12 (a)	Describe in detail the process of transition of IPv4 to IPv6.	13	CO3-K2	2.2.4
	(Or)			
(b)	Illustrate the concept of reliable flooding and route calculation in detail.	13	CO3-K2	2.2.4
13(a)	Define UDP. Discuss the operation and checksum of UDP with example.	13	CO4-K2	1.3.1
	(Or)			
(b)	Explain in detail about the three way handshake protocol for connection establishment in TCP.	13	CO4-K2	1.3.1
14a)	Explain how flow control and error control can be achieved in TCP.	13	CO4-K2	1.3.1
	(Or)			
(b)	Analyze the problems with Integrated services. Also Explain how to overcome these shortcomings.	13	CO4-K4	2.2.4
15 (a)	What do you mean by firewall? How the firewall works in computer networks? And also explain how it protects the network from unauthorized access by the intruder.	13	CO5-K4	2.2.4
	(Or)			
(b)	Explain in detail about World Wide Web.	13	CO4-K2	1.3.1

PART – C (1 x 15 = 15 marks)

Q.No.	Question	Max. Marks	CO-K Level	PO-PI Code
16 (a)	Some application programs, such as FTP, need more than one connection when using TCP. Find how the multistream service of SCTP can help these applications establish only one association with several streams.	13	CO5-K4	2.2.4
(Or)				
(b)	Analyze the message format and the message transfer and the underlying protocol involved in the working of electronic mail.	15	CO5-K4	2.2.4

Bloom's Taxonomy Level wise Marks and Course Outcome wise Marks Distribution Analysis:

Competence level	Blooms' Taxonomy	Question No.	Marks	BTL Contribution in %	Course Outcome	Marks	CO Contribution in %
K1	Remember				CO1		
K2	Understand	**1,3,4,6,7,8,9,11b,12a,b, 13a,b, 14a, 15b**	**103**	**57.2**	CO2		
K3	Apply	**5**	**2**	**1.1**	CO3	56	31.1
K4	Analyse	**2,10,11a,14b, 15a,16a,b**	**75**	**41.7**	CO4	60	33.3
K5	Evaluate				CO5	64	35.6
K6	Create						
Total			**180**	**100**		**180**	**100**

Prepared By **Verified By** **Approved By**