Roll No.:
(To be filled in by the candidate)

PSG POLYTECHNIC COLLEGE, COIMBATORE - 641 004

SEMESTER EXAMINATIONS, FEB 2022

DIP – COMPUTER NETWORKING SEMESTER: 5

C18501 – WIDE AREA NETWORKS

Time: 3 Hours Max. Marks: 75

Instructions:
1. Answer all questions by choosing either (a) division or (b) division.
2. Each question carries 15 marks.
3. Division (a) and (b) have three subdivisions (i), (ii) and (iii) which carries 2 marks, 3 marks and 10 marks respectively.

Q. No.	Div.	Sub. div.	Questions	Bloom's Taxonomy	Marks	Total Marks	Course Outcome
1	a	i	What do you mean by Point to point protocol (PPP)?	R	2	15	CO 1
		ii	Discuss about HDLC frame types.	A	3		
		iii	What are the types of WAN technologies available? Explain any two of them in brief.	U	10		
	OR						
	b	i	Compare Cable modem and DSL Modem	R	2		
		ii	What is Wifi Router? Where is it used?	U	3		
		iii	Illustrate the architecture of Integrated Service Digital Networks (ISDN) with relevant diagrams.	A	10		
2	a	i	Define Frame relay.	R	2	15	CO 2
		ii	What is L2TP/IPSec? Why is it suitable for Secret communications?	U	3		
		iii	Illustrate the functions of ATM layers with a neat diagram.	A	10		
	OR						
	b	i	What do you mean by Site to Site VPN?	R	2		
		ii	How does the push operation work in MPLS network?	U	3		
		iii	Discuss about the concept behind Virtual Private Network (VPN) and VPN Tunnels.	A	10		

3	a	i	What is Network convergence? Mention some of its benefits.	R	2	15	CO 3
		ii	Compare the characteristics of Data and voice traffic.	U	3		
		iii	Discuss about the functions of Gate keeper and Gateway in H.323 architecture.	A	10		
	OR						
	b	i	What is TCP? Why is it not suitable for real time multimedia applications?	U	2		
		ii	Specify the features of Session Initiation Protocol (SIP).	R	3		
		iii	Discuss about the components of IP based converged network in brief.	A	10		

4	a	i	What is meant by Voice over IP?	R	2	15	CO 4
		ii	Suggest solutions for some of the common network problems that are expected when implementing video conferencing over packet based networks.	A	3		
		iii	What is Voice response system? Discuss its advantages and applications in brief.	U	10		
	OR						
	b	i	List any two video file formats.	R	2		
		ii	Suggest some security mechanisms for Wireless LAN	A	3		
		iii	Draw Router based VoIP architecture and explain its working.	U	10		

5	a	i	How do you connect and access a router using Console port?	R	2	15	CO 5
		ii	Compare the features of IGRP and EIGRP	A	3		
		iii	Explain about the Privileged EXEC and Global configuration modes in Cisco IOS.	U	10		
	OR						
	b	i	Define show command with an example	R	2		
		ii	What are the types of memory in Cisco router? Where is Startup configuration stored?	U	3		

		iii	Illustrate the steps in detail to configure Open Shortest Path First (OSPF) routing protocol using a simple network scenario.	A	10		
					Total	75	

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