

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SECOND SEMESTER M.C.A DEGREE EXAMINATION (Supplementary), December 2021**Course Code: 20MCAT104****Course Name: ADVANCED COMPUTER NETWORKS****Max. Marks: 60****Duration: 3 Hours****PART A***(Answer all questions. Each question carries 3 marks)*

	CO
1. Write a short note on Packet Switching.	[1]
2. What are the services provided by DNS?	[1]
3. Draw the TCP Segment Structure. What is Urgent Pointer?	[2]
4. How multiplexing is done in a connection-oriented transport?	[2]
5. Differentiate Intra and Inter Domain Routing.	[3]
6. Compare IPV ₄ and IPV ₆ .	[3]
7. Illustrate IEEE 802.3 frame structure.	[4]
8. How CSMA/CD detects collision in a network?	[4]
9. Explain Network Address Translation (NAT).	[5]
10. Write any three attacks threatening the integrity of data.	[5]

PART B*(Answer one full question from each module, each question carries 6 marks)***MODULE I**

	CO	Marks
11. Compare and contrast OSI and TCP/IP network reference models.	[1]	(6)

OR

	CO	Marks
12. Write short notes on : (a) SMTP and (b) POP3.	[1]	(6)

MODULE II

	CO	Marks
13. Explain : TCP Connection Establishment using Three-Way Handshaking.	[2]	(6)

OR

	CO	Marks
14. Explain the congestion control policies in TCP.	[2]	(6)
MODULE III		
15. a) Discuss the route selection process in BGP.	[3]	(3)
b) What are the different phases in a virtual connection network?	[3]	(3)
OR		
16. An ISP is granted a block of addresses starting with 120.60.4.0/20. The ISP wants to distribute these blocks to 100 organizations with each organization receiving 8 addresses only. Design the sub blocks and give the slash notation for each sub block. Find out how many addresses are still available after these allocations.	[3]	(6)
MODULE IV		
17. Explain CRC method in Data Link layer.	[4]	(6)
OR		
18. How IP addresses are translated to link-layer addresses?	[4]	(6)
MODULE V		
19. Illustrate and explain the 802.11 architecture.	[5]	(6)
OR		
20. What are firewalls? Explain the different types of firewalls.	[5]	(6)
