

Reg. No.																				
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code	12641
---------------------	-------

M.E. / M.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

Second Semester

M.E. - Computer Science and Engineering (with Specialization in Networks)

20PCNPC201 - NETWORK DESIGN AND PROGRAMMING

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

	Marks	K-Level	CO
1. What is Multiplexing? What are the types of Multiplexing?	2	K1	CO1
2. Define Code Division Multiplexing.	2	K1	CO1
3. Name some Remote Access Technologies.	2	K2	CO2
4. Differentiate Modem and DSL.	2	K2	CO2
5. Compare IPv4 and IPv6.	2	K2	CO3
6. What is the use of VLSM?	2	K1	CO3
7. Differentiate Centralized and distributed Plane.	2	K2	CO4
8. List out the features of Virtualization.	2	K1	CO4
9. Name some server side TCP socket calls.	2	K1	CO5
10. What is concurrent server?	2	K1	CO5

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

11. a) Define and explain in detail about the Infrastructure based Adhoc and Hybrid Wireless networks.	13	K1	CO1
<b>OR</b>			
b) State and describe briefly about Cell switching and Label Switching.	13	K1	CO1
12. a) Describe about the various Remote Access Technologies and Devices.	13	K2	CO2
<b>OR</b>			
b) Discuss in detail about various LAN cabling Technologies with neat diagram.	13	K2	CO2
13. a) Explain in detail about the DHCP.	13	K2	CO3
<b>OR</b>			
b) Discuss in detail about the SNMP.	13	K2	CO3

14. a) What is SDN architecture? Explain the different planes/layers in the SDN Architecture. 13 K2 CO4

**OR**

- b) Discuss about the centralized and distributed control of SDN with example. 13 K2 CO4

15. a) Describe in detail about UDP Sockets with neat sketch. 13 K2 CO5

**OR**

- b) Differentiate Iterative and Concurrent servers and explain with an example. 13 K2 CO5

**PART - C (1 × 15 = 15 Marks)**

16. a) i) Explain in detail about shared media networks. 7 K2 CO1  
ii) Write short notes on Byte Ordering and Byte Manipulation Functions. 8 K2 CO5

**OR**

- b) i) Explain in detail about the DWDM. 7 K2 CO1  
ii) Brief the way in which a TCP client server different from UDP client server. 8 K2 CO5