No. of Printed Pages : **1**

Sl. No.

C2-R4 : ADVANCED COMPUTER NETWORKS

NOTE :

1. **Answer question 1 and any FOUR from questions 2 to 7.**
2. **Parts of the same question should be answered together and in the same sequence.**

Time : 3 Hours **Total Marks : 100**

1. (a) What is multiplexing in the context of computer networks ?
(b) What do you mean by layered architecture ?
(c) How many layers are there in TCP/IP protocol suite ?
(d) What is IPv6 ?
(e) For what purpose the protocol SMTP is used ?
(f) In which technology, we send codecs to encapsulate audio into data packets, transmit the packets across an IP network and unencapsulate the packets back into audio at the other end of the connection ?
(g) For what type of networktechnology we use IEEE 802.11 standers ?

(7x4)

2. (a) What type of network is Jacson network ? What are the key features of a Jacson network ?
(b) Briefly explain Remote Procedure call (RPC).

(9+9)

3. (a) Why the queuing systems are studied in networking ? Explain the M/G/1 queue in short.
(b) In the multiple access networks, differentiate between pure and slotted ALOHA.

(9+9)

4. (a) Does RTP take cares of media's quality of service (QoS) ? If Yes, how ?
(b) Comment on the need of encryption in VPN. Why tunneling is needed in multicast & internet working ?

(9+9)

5. (a) Why ATM layers are needed in networking ? Explain the key features of AAL-2.
(b) How does DVMRP (Distance Vector Multicast Routing Protocol) work ?

(9+9)

6. (a) How NNI and UNI are different ?
(b) Discuss why leaky bucket algorithm is used ?

(9+9)

7. (a) What are the main differences between TCP and UDP ? Discuss the disadvantages of both the protocol standards.
(b) Write Short note on :
(i) UDP header format
(ii) TCP Connections establishment.

(9+9)

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