

Roll No.

Total Pages : 4

11064/NJ**D-18/2111****COMPUTER NETWORKS**

Paper-204

Semester-III

Time Allowed : 3 Hours] [Maximum Marks : 50

Note : The candidates are required to attempt **three** questions each from Sections A and B carrying 5 marks each and the entire Section C consisting of 10 short answer type questions carrying 2 marks each.

SECTION—A

1. Discuss topology and its types. How much total number of cables and ports are needed on each device in mesh topology of 5 devices? 5

2. How two devices communicate with one another as per OSI Model? 5
3. Explain the different types of transmission impairments. How we can reduce them? 5
4. What are the different types of wireless transmission? In which frequency ranges of electromagnetic spectrum they operate? 5
5. What are the different categories of twisted pair cables along with their Data rates? 5

SECTION—B

6. How Checksum method is used for error detection ? Explain it with example. 5
7. What is GO back N ARQ sliding window protocol? How is it used to manage the flow control? 5
8. How Link state routing protocol is used to build the routing tables ? Explain it by taking example. 5

9. Differentiate between connectionless and connection oriented protocol? 5
10. Explain the function of SMTP protocol is used in the electronic Mail. 5

SECTION—C

11. Answer the following questions : 10×2=20
- (i) Which layers of OSI model are the network support layers?
 - (ii) What is MAC address and its size?
 - (iii) A signal travels from a point A to point B. At point A, the signal power is 100W. At point B, the power is 90W. What is the attenuation in decibels?
 - (iv) How sky propagation differ from line of sight propagation?
 - (v) What is subnetting and super netting of IP address?

- (vi) Explain Choke packet.
- (vii) What is I-Persistent method?
- (viii) Different flags used by TCP protocol.
- (xi) What is VRC error detection method?
- (x) What is the maximum data rate of CAT-6 twisted pair cable?