Regd. No. | | | | | | | | | | |

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)
Estd. u/s 3 of UGC Act 1956

Regulation: R13 **Code No:CS313/8**

III B. Tech I Semester Examinations – November, 2018

COMPUTER NETWORKS

Time: **3** hours (CSE/IT) Max. Marks: **60M**

SECTION – A

Answer all ten questions **10×1M=10M**

1. Communication between a computer and a keyboard involves _____ transmission
   a) Automatic b)Half-duplex c) Full-duplex d) Simplex
2. A set of rules that governs data communication
   a) Protocols b) Standards c) RFCs d) None of the mentioned
3. Bits can be send over guided and unguided media as analog signal by
   a) digital modulation b) amplitude modulation
   c) frequency modulation d) phase modulation
4. Header of a frame generally contains
   a) synchronization bytes b) addresses c) frame identifier d) all of the mentioned
5. A subset of a network that includes all the routers but contains no loops is called
   a) spanning tree b) spider structure c) spider tree d) none of the mentioned
6. ICMP is primarily used for
   a) error and diagnostic functions b) addressing c) forwarding d)none of the mentioned
7. An endpoint of an inter-process communication flow across a computer network is called
   a) socket b) pipe c) port d) none of the mentioned
8. Which one of the following is a transport layer protocol used in internet?
   a) TCP b) UDP c) Both (a) and (b) d) None of the mentioned
9. The packet of information at the application layer is called
   a) Packet b) Message c) Segment d) Frame
10. To deliver a message to the correct application program running on a host, the _____ address must be consulted
    a) IP b) MAC c) Port d) None of the mentioned

SECTION – B

Answer all five questions **5×2M= 10M**

11. Outline the importance of protocols.
12. Group the OSI layers by function.
13. List the responsibilities of data link layer.
14. Compare virtual circuit and datagram subnets.
15. Define Congestion.

SECTION – C

Answer all four questions **4×5M = 20M**

16. Illustrate ISO-OSI model of computer network with a neat diagram

(OR)

17. List and explain the major components of networking hardware and software

18. Explain the operation of the bit-oriented protocol HDLC with the required frames

(OR)

19. Write short notes on: a) Go back NARQ b) Selective repeat ARQ

20. Discuss stop and wait protocol

(OR)

21. Demonstrate sliding window protocol using Go back n.

22. State the major difference between Distance Vector Routing and Link State Routing

(OR)

23. Compute is the sub network address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0

SECTION – D

Answer all two questions **2×10M= 20M**

24. a) Perform a comparative study between the ISO OSI model and the TCP/IP reference model
    b) Discuss about connection establishment and release in TCP

(OR)

25. Present a tutorial on User Datagram Protocol (UDP)

26. a) Discuss the uses of HTTP protocol and identify default port number of HTTP protocol
    b) List and discuss the types of DNS records

(OR)

27. a)Explain duties of FTP protocol.
    b) Elaborate on WWW.