



6057

JE - 323

V Semester B.Tech. (CSE/ISE) Degree Examination, February 2021
(CBCS Scheme)

18CIPC501 : COMPUTER NETWORKS

Time : 3 Hours

Max. Marks : 100

Instructions : 1) Q. 1, Q. 2 and Q. 3 are **compulsory**.
2) Answer Q. 4 or Q. 5, Q. 6 or Q. 7 and Q. 8 or Q. 9.

1. Answer the following MCQs :

(15×1=15)

- 1) Computer Network is
 - a) Collection of hardware components and computers
 - b) Interconnected by communication channels
 - c) Sharing of resources and information
 - d) All of the above
- 2) What is a Firewall in Computer Network ?
 - a) The physical boundary of Network
 - b) An operating system of Computer Network
 - c) A system designed to prevent unauthorized access
 - d) A web browsing Software
- 3) How many layers does OSI Reference Model has ?
 - a) 4
 - b) 5
 - c) 6
 - d) 7
- 4) IPV4 Address is
 - a) 8 bit
 - b) 16 bit
 - c) 32 bit
 - d) 64 bit
- 5) DNS is the abbreviation of
 - a) Dynamic Name System
 - b) Dynamic Network System
 - c) Domain Name System
 - d) Domain Network Service
- 6) What is the use of Bridge in Network ?
 - a) To connect LANs
 - b) To separate LANs
 - c) To control Network Speed
 - d) All of the above
- 7) Router operates in which layer of OSI Reference Model ?
 - a) Layer 1 (Physical Layer)
 - b) Layer 3 (Network Layer)
 - c) Layer 4 (Transport Layer)
 - d) Layer 7 (Application Layer)

P.T.O.



- 8) Which of following provides reliable communication ?
a) TCP b) IP c) UDP d) All of the above
- 9) Which of the following can be Software ?
a) Routers b) Firewalls c) Gateway d) Modems
- 10) Expansion of FTP is
a) Fine Transfer Protocol b) File Transfer Protocol
c) First Transfer Protocol d) None of the mentioned
- 11) In wireless ad-hoc network
a) Access point is not required b) Access point is must
c) Nodes are not required d) None of the mentioned
- 12) WiMAX provides
a) Simplex communication b) Half duplex communication
c) Full duplex communication d) None of the mentioned
- 13) Electronic mail uses this Application layer protocol
a) SMTP b) HTTP c) FTP d) SIP
- 14) This is not a application layer protocol
a) HTTP b) SMTP c) FTP d) TCP
- 15) Physical or logical arrangement of network is
a) Topology b) Routing
c) Networking d) None of the mentioned
2. a) Briefly explain the congestion control mechanisms in the transport layer. 10
b) Explain TCP and UDP Header Format. 7
3. a) What is the significance of DNS ? Explain DNS concept in detail. 10
b) Write a detailed note on Electronic Mail. 7
4. a) Explain with diagram, the OSI reference model for computer network in brief. 10
b) Write a note on Guided Transmission Media. 7
- OR
5. a) What is FDM and TDM ? Explain in detail with diagram. 10
b) Explain the TCP/IP Reference model in detail. 7



6. a) Explain pure ALOHA and slotted ALOHA Protocol with neat diagram ? 10
b) Write the Data link layer design issues in brief. 7

OR

7. a) With a neat diagram, explain :
i) Go Back N
ii) Selective Repeat ARQ Protocols. 10
b) Find the code word $C(X)$, using CRC for the information $d(X) = X^3 + X$ with generator polynomial $g(X) = X^3 + X^2 + 1$. 7
8. a) Evaluate how Traffic shaping is important for quality of service in routing. 10
b) Explain network layer design issues in detail. 7

OR

9. a) Explain Distance Vector Routing and Link State Routing in detail. 10
b) What is the need to change from IPV4 to IPV6 ? Write IPV6 header and describe its field. 7
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