

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

(Autonomous)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COMPUTER NETWORKS

UNIT – I

SHORT ANSWER QUESTIONS

1. Define Network? Explain different types of networks.
2. Define protocol? why are protocols needed?
3. Describe the internet administration.
4. Describe the importance of Layering Principle.
5. Classify different types of Layers of TCP/IP.
6. Write the similarities of OSI model and TCP/IP model.
7. Write about the history of internet.
8. Describe why protocol standards needed.
9. Explain briefly about LAN, WAN AND MAN.
10. Define Internet ? Differentiate it from intranet?
11. Define an internet Standard.
12. Define computer networks and what is the need.
13. Define multiplexing and demultiplexing.
14. Distinguish between TCP/IP and OSI model.
15. What is meant by transmission medium? Explain the types of transmission medium.
16. Compare guided media and unguided media.
17. Describe RFC.
18. List the advantages of optical fibre over twisted pair and coaxial cable.
19. Write about network Criteria?
20. List the types of topologies?

LONG ANSWER QUESTIONS

1. Explain ISO/OSI Reference model with neat diagram?
2. Explain about TCP/IP Protocol Suite?
3. Explain about different types of topologies ?
4. Compare and Contrast TCP/IP model and OSI model?
5. Explain Guided and unguided transmission Media?

UNIT – II

SHORT ANSWER QUESTIONS

1. Explain about CRC.
2. Design issues of Data link Layer?
3. List out advantage of CSMA/CD and CSMA protocol?
4. Define MAC?
5. Define Ethernet?
6. Define Checksum?
7. Define Bridge?
8. Define Hub?
9. Define Router?
10. Define Piggy backing?
11. Explain how throughput is improved in slotted ALOHA over pure ALOHA?
12. Write about Hamming code with example?
13. Difference between repeater and hub?
14. compare router and Gateway?
15. List the Error Correcting Techniques?
16. write about properties of bridges?
17. write about spanning tree bridge?

18. Write about Framming ?
19. Write about Polling?
20. Write about Differential Manchester encoding with example?

LONG ANSWER QUESTIONS

1. Explain about Multi Access Protocols?
2. Explain Elementary Datalink Layer Protocols?
- 3.. Explain in details about Evolution of Ethernet in physical and MAC layer?
4. Explain the working of carrier sense multiple access (CSMA) /CD with binary Exponential Backoff algorithm?
5. Explain about connecting Devices?

UNIT – III

SHORT ANSWER QUESTIONS

1. List Design Issues Of Network layer?
2. Write about characteristics of network layer?
3. Define Flooding?
4. Define Optimality principle?
6. Define routing? List the routing algorithms?
7. Define Admission control?
9. List out various congestion avoidance techniques?
10. Write about packet Fragmentation?
11. Illustrate the shortest path routing algorithm?
12. Compare between Distance Vector routing and Hierarchical Routing algorithms?
13. Write about Count to infinity with an example?
14. explain subnet masking.

15. List the closed loop techniques?
16. Define store and forward packet switching?
17. Difference between classless and classful addressing?
18. Define Tunneling?
19. Define ARP & RARP?
20. Explain DHCP?

LONG ANSWER QUESTIONS

1. Compare virtual circuit and datagram subnet?
2. Explain Header format of ICMP?
3. Compare distance vector routing algorithm and hierarchical routing algorithm? Explain hierarchical routing algorithm with suitable example?
4. Explain about IPv4 and IPv6 formats with neat diagram?
5. Explain header format of ARP, DHCP and RARP?

UNIT – IV

SHORT ANSWER QUESTIONS

1. Write about 3-way handshaking?
2. List out functions of transport layer?
3. Write about header format of UDP
4. List the port numbers of some applications
5. List the TCP primitives
6. Write about RTP
7. Write about elements of transport protocol
8. Explain RPC with neat diagram

9. Write about connection release
10. Discuss in brief about TCP sliding window protocol
11. Discuss in brief about TCP congestion control
12. Discuss in brief about TCP connection management modelling
13. Define socket? list socket primitives for TCP
14. Define multiplexing
15. Explain about Transport Layer Services?
16. Explain how connection Establishment is acquiring?
17. Explain crash Recovery?
18. Write about uses of UDP?
19. Write about future of TCP
20. Discuss in brief about transport layer addressing

LONG ANSWER QUESTIONS

Explain about TCP header?

Explain connection establishment and connection release?

- 3.Explain about TCP service Model?
4. Explain about TCP connection Management Modeling?
5. Discuss Briefly about TCP Congestion Control?

UNIT - V

1. Explain the functionalities of application layer?
2. Write about recursive resolution
3. State advantages of HTTP?

4. Define message formatting?
5. Write in brief about name space distribution
6. Differentiate between FTP & HTTP?
7. Write about MIME
8. Discuss in detail about POP and IMAP
9. List two applications of Application Layer?
10. Explain DNS Name Space?
11. List the advantages of Email?
12. Define SMTP?
13. Explain the concept of Telnet?
14. Write about FTP?
15. Write in detail about WWW
16. Write about application layer paradigms?
17. Discuss in detail about user agent
18. Explain in brief about DNS in internet
19. Define URL
20. Write about transmission modes of FTP

LONG ANSWER QUESTIONS

1. Explain in detail about the DNS?
2. Explain the working principle of FTP and TELNET in detail with neat diagram?
3. Explain the Header format of email.
4. Explain in detail about header format of HTTP.
5. Explain in detail about application layer paradigms?

