17U633S (Pages: 2) Name: ……..…….

Reg. No……..……

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2020

(CUCBCSS-UG)

(Supplementary/Improvement)

CC15U BCS6 B14 - COMPUTER NETWORKS

Computer Science - Core Course

(2015, 2016 Admissions)

Time: Three Hours Maximum: 80 Marks

I. Answer ***all*** questions. Each question carries 1 mark.

1. A ---------- is a set of devices connected by communication links.
2. The connection of network with multiple recipients of single transmission is referred as ----------
3. The ---------- consists of set of rules that govern data communications.
4. The ---------- layer is responsible for the delivery of a message from one process to another.
5. Logical or IP addresses are used in which layer of TCP/IP model?
6. ---------- protocol allow host to dynamically obtain its IP address from network server when it joins network.
7. Dijkstra's algorithm is a ---------- routing algorithm.
8. ---------- protocol is used to determine interface's MAC address, knowing its IP address.
9. ---------- is the first and widely used wired LAN technology.
10. The process of converting plain text into cipher text is referred to as ----------

(10 x 1 = 10 Marks)

II. Answer ***all*** questions. Each question carries 2 marks.

11. What is the role of interfaces in networking?
12. List the advantages of using CSMA/CD protocol.
13. What do you mean by polling?
14. What is DNS? Mention the advantage of using it.
15. What is a web server?

(5 x 2 = 10 Marks)

III. Answer any ***five*** questions. Each question carries 4 marks.

16. Define network topology. Explain various types of topologies.
17. Briefly explain the layers of TCP/IP network model.

18. Explain any one of the error correction code with example.
19. What is ALOHA? Distinguish between pure ALOHA and slotted ALOHA.
20. Mention the advantages of IPv6 over IPv4?
21. Explain how congestion control is handled in transport layer.
22. What is NIC? How it can be configured?
23. Explain any two protocols used in application layer.

(5 x 4 = 20 Marks)

IV. Answer any ***five*** questions. Each question carries 8 marks.

24. Explain ISO/OSI network model with the help of a diagram.
25. What are switching techniques? Explain how they differ from each other.
26. What are the various types of errors in data communication? Briefly explain the methods used for error detection and correction.
27. What is an internet? Explain various inter networking devices.
28. Define the term *routing*. Explain any two routing algorithms with example.
29. Mention the services provided by transport layer. Briefly explain about different protocols used in transport layer.
30. Define network security. What are the different types of security attacks?
31. What is an IP address? How can we setup a LAN of 100 nodes?

(5 x 8 = 40 Marks)

****