BCA-14

Data Communication and Computer Networks

Bachelor of Computer Application (BCA-11/16/17)

Diploma in Information Technology (DIT-17)

5th Semester Examination 2019

Time : 3 Hours]   **Max. Marks : 80**

Note : This paper is of Eighty (80) marks divided into three (03) sections A, B and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A
(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

(2×19=38)

1. Explain ISO-OSI Reference Model. Which ISO layer is responsible for error detection and correction?

2. Explain LAN, WAN and MAN.

3. Define firewalls and Proxy Servers.

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4. What are the different type of transmission media used in a network ? Differentiate the features of guided media and unguided media.

SECTION–B
(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer any four (04) questions only. (4×8=32)

1. List and explain the working of network layer.

2. Explain DNS, IP Address and URL.

3. What is the difference between active hub and passive hub?

4. What are the standard data rates for Ethernet and to which OSI layer Ethernet belong?

5. List the differences between any three protocols.

6. Explain IP and use of an IP address.

7. List the components of NIC.

8. What is MAC Sub Layer?

SECTION–C
(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory. (10×1=10)

1. IPV6 is of _____ bits.

    (a) 32   (b) 64

    (c) 128   (d) 148.

2. Which topology requires a multipoint connection ?

    (a) Mesh   (b) Star

    (c) Bus   (d) Ring.

3. WLAN is related to _____

    (a) IEEE 802.11   (b) IEEE 802.3

    (c) IEEE 802.15.4   (d) None of the above.

4. DCE stands for _____

    (a) Data communication entry

    (b) Data common equipment

    (c) Data communication equipment

    (d) None of the above.

5. A_____ is a set of rules that governs data communication.

    (a) Protocol   (b) Forum

    (c) Standard   (d) None of the above.

6. A television broadcast is an example of_____ transmission

    (a)   Half duplex   (b)   Simplex

    (c)   Full duplex   (d)   Automatic.

7. Which topology requires a central controller or hub?

    (a)   Mesh   (b)   Bus

    (c)   Star   (d)   Ring.

8. Application layer provide basis for

    (a)   Email services

    (b)   Frame division

    (c)   File making

    (d)   None of the above.

9. A circuit-switched network is made of a set of switches connected by physical

    (a)   Link   (b)   Media

    (c)   Nodes   (d)   Lines

10. An Internet is a

    (a)   Collection of LANs

    (b)   Network of networks

    (c)   Collections of WANs

    (d)   Collection of identical LANs and WANs