

Roll No.

BCA–14

Data Communication and Computer Networks

Bachelor of Computer Applications

(BCA–11/16/17)

Fifth Semester, Examination, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to 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 *two* (02) questions only.

1. Explain the working of Fiber optic. Also explain single mode and multimode communication mechanism.
2. What are TCP and UDP ?
3. What is a Proxy Server and how do they protect the computer network ?

(B-86) P. T. O.

4. Explain Ethernet different Framing Format :
IEEE 802.3, IEEE 802.4 and IEEE 802.5.

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 *four* (04) questions only.

1. List and explain the working of session layer.
2. Explain DNS.
3. What is the difference between Hub, Switch and Router ?
4. What is OSI reference model ?
5. List the differences between any *three* protocols.
6. What are IP classes and how can you identify the IP class of given a IP address ?
7. How many types of modes are used in data transferring through networks ?
8. Brief Ethernet.

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.

1. Unicast is method.
 - (a) One-to-many
 - (b) Many-to-many
 - (c) Many-to-one
 - (d) One-to-one

2. The layer changes bits into electromagnetic signals.
 - (a) Network
 - (b) Transport
 - (c) Application
 - (d) Physical
3. WLAN is related to
 - (a) IEEE 802.11
 - (b) IEEE 802.3
 - (c) IEEE 802.15.4
 - (d) None of the above
4. For large networks topology is used.
 - (a) Irregular
 - (b) Ring
 - (c) Star
 - (d) Bus
5. A is a set of rules that governs data communication.
 - (a) Protocol
 - (b) Forum
 - (c) Standard
 - (d) None of the above
6. How many bytes are in Ethernet address ?
 - (a) 6
 - (b) 5
 - (c) 4
 - (d) 3

7. An internetworking device operating at the transport layer is called a
 - (a) Bridge
 - (b) Router
 - (c) Repeater
 - (d) Gateway
8. Physical layer provide basis for :
 - (a) E-mail 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. A proxy server is used for which of the following ?
 - (a) To provide security against unauthorised users
 - (b) To process client requests for web pages
 - (c) To process client requests for database access
 - (d) To provide TCP/IP