

Roll No. ....

## **BCA–14**

### **Data Communication and Computer Networks**

Bachelor of Computer Application

(BCA–16/BCA–11)

Fifth Semester, Examination, 2017

**Time : 3 Hours**

**Max. Marks : 60**

**Note :** This paper is of **Sixty (60)** marks containing **three (03)** sections A, B, 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 fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. What is network Topology ? List and explain different network Topologies.
2. Explain TCP and UDP protocols.
3. What is a computer network ? Explain LAN, MAN and WAN with example.
4. Explain the concept of message switching and Packet Switching.

**Section-B****(Short Answer Type Questions)**

**Note :** Section 'B' contains eight (08) short answer type questions of five (5) marks each. Learners are required to answer *four* (04) questions only.

1. What is NIC card ? What are its functions ?
2. What is the difference between OSI and TCP/IP model ?
3. What are the disadvantages associated with unguided media ? List and explain.
4. Define the following terms :
  - (i) Router
  - (ii) Switch
5. List components of NIC. Also list different types of NICs.
6. List and explain functions of Data Link layer.
7. What is Simplex, Half Duplex mode of communication ?
8. Explain DNS with suitable example.

**Section-C****(Objective Type Questions)**

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

1. In ..... transmission, the channel capacity is shared by both communicating devices at all times.
  - (a) Simplex
  - (b) Half duplex
  - (c) Full duplex
  - (d) Full Simplex

2. A television broadcast is an example of ..... transmission.
  - (a) Simplex
  - (b) Half duplex
  - (c) Full duplex
  - (d) Full Simplex
3. An unauthorized used is a network ..... issue.
  - (a) Performance
  - (b) Reliability
  - (c) Security
  - (d) All of the above
4. .... is the protocol suite for the current Internet.
  - (a) TCP/IP
  - (b) UDP
  - (c) UNIX
  - (d) ATM
5. The OSI Model consists of ..... layers.
  - (a) 3
  - (b) 5
  - (c) 7
  - (d) 8
6. Unicast is ..... method.
  - (a) One to many
  - (b) Many to many
  - (c) Many to one
  - (d) One to one

7. The process-to-process deliver of the entire message is the responsibility of the ..... layer.
  - (a) Network
  - (b) Transport
  - (c) Application
  - (d) Physical
8. IPv4 is of ..... bits.
  - (a) 8
  - (b) 16
  - (c) 32
  - (d) 64
9. IEEE 802.11 is standard for .....
  - (a) WLAN
  - (b) WPAN
  - (c) MAN
  - (d) None of the above
10. Multicast is ..... method.
  - (a) One to many
  - (b) Many to many
  - (c) Many to one
  - (d) One to one