Professional Course Examination, May 2022
Semester : **4**
Subject Code : **BCA/4/CC/21**
Subject : **Bachelor of Computer Applications**
Name of the Paper : **Computer Networking—I**

Date of Examination : **06-05-2022**

No. of Answer Sheet(s) Used : _____

Full Marks : 75   **Time : 3 Hours**

INSTRUCTIONS TO CANDIDATES

Please read the instructions carefully before you start writing your answers.

1. Questions should be attempted as per instructions.

2. Candidate should clearly indicate the Question Nos. and the Page No. for each sheet.

3. Please write your Roll No. and Registration No. clearly and correctly in the space provided.

4. Do not write your name or the name of your college/institution anywhere or anything else, which is not part of your answer.

5. Candidate should make sure that the answer sheets scanned should be legible.

6. The Invigilator on duty should confirm that the correct script is received, compiled and attached to the correct Cover Page.

7. Multiple Choice Answer should indicate the Question No., Sub. No., (if any) and the correct answer. For example—

   1. *Name the state capital of Mizoram.*
      (a) Lunglei
      (b) Champhai
      (c) Aizawl
      (d) Mamit

   Candidate should provide answer as
   1 (c) Aizawl

   [Candidate should avoid writing only (c)]

PART–A (OBJECTIVE) SECTION–I	
Total	

SECTION–II	
Question Nos.	Marks
Total	

PART–B (DESCRIPTIVE)	
Question Nos.	Marks
Total	
G. Total	

Professional Course Examination, May 2022

(4th Semester)

BACHELOR OF COMPUTER APPLICATIONS

(Computer Networking—I)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(*Marks* : 25)

SECTION—I

(*Marks* : 15)

Choose the correct answer from the options provided : 1×10=10

1. Token ring is a data link technology for
   (a) WAN
   (b) MAN
   (c) LAN
   (d) Both *(a)* and *(b)*

2. TELNET used _____ protocol for data connection.
   (a) TCP
   (b) UDP
   (c) IP
   (d) DHCP

3. What is the full form of URL?

   (a) Uniform Routing Locator

   (b) Uniform Resource Locator

   (c) Universal Resource Locator

   (d) Uniform Router Locator

4. Which of the following is secure VPN protocol?

   (a) UDP

   (b) TCP

   (c) SSTP

   (d) Both *(b)* and *(c)*

5. _____ is added to data packet for error detection.

   (a) Checksum bit

   (b) Error bit

   (c) Parity bit

   (d) None of the above

6. Why was the OSI model developed?

   (a) Manufacturers disliked the TCP/IP protocol suite

   (b) The rate of data transfer was increasing exponentially

   (c) Standards were needed to allow any two systems to communicate

   (d) None of the above

7. Data link layer is responsible for

   (a) node-to-node delivery

   (b) host-to-host delivery

   (c) process-to-process delivery

   (d) None of the above

8. The well-known port number of FTP is

   (a) 21

   (b) 23

   (c) 69

   (d) 80

9. The service offered by TCP is

   (a) reliable service

   (b) process-to-process communication

   (c) full-duplex communication

   (d) All of the above

10. The frequency range of microwave is

   (a) 3 kHz to 1 GHz

   (b) 1 GHz to 300 GHz

   (c) 300 GHz to 400 GHz

   (d) None of the above

State whether the following statements are True or False :   1×5=5

11. A server can run on a workstation computer.

12. Network services do not include messaging.

13. In a peer-to-peer network, any client computer can also be a server.

14. The standard protocol of the Internet is ethernet.

15. A hub connects two different LANs.

SECTION—II

(*Marks* : 10)

Answer the following questions : 2×5=10

1. *(a)* What is the difference between server and client?

OR

(b) Differentiate between switch and router.

2. *(a)* What is Wavelength Division Multiplexing?

OR

(b) What is quantization?

3. *(a)* What are the responsibilities of data link layer?

OR

(b) What is Cyclic Redundancy Checking?

4. *(a)* What is the function of UDP?

OR

(b) What do you mean by network address translation?

5. *(a)* What is the purpose of DNS (Domain Name System)?

OR

(b) What is the function of bluetooth?

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

Answer the following questions :   10×5=50

1. *(a)* What is OSI reference model? Explain any two layers of OSI reference model.

OR

(b) What is topology? Explain any two types of topology with neat diagrams.

2. *(a)* Describe the different types of guided transmission medium.

OR

(b) What is multiplexing? Describe how Frequency Division Multiplexing (FDM) works.

3. *(a)* Explain any two types of error detection technique.

OR

(b) Explain any two types of error correction technique.

4. *(a)* What is IP addressing? Write the differences between IPv4 and IPv6.

OR

(b) Explain TCP with its header format.

5. *(a)* Discuss the basic model of FTP.

OR

(b) What is the purpose of NIC in LAN technology? Differentiate between standard ethernet and fast ethernet.

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