[This question paper contains 5 printed pages.]

Your Roll No...............

Sr. No. of Question Paper : 2653   A

Unique Paper Code   : 62345625_OC

Name of the Paper   : Multimedia and Web Designing

Name of the Course   : B.A. Programme (CBCS)

Semester   : VI

Duration : 3 Hours   Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. Question 1 is compulsory.

3. Attempt any five questions from Question 2 to 9.

1. (a) Define multimedia.   (2)

   (b) What is color pallete?   (2)

   (c) Explain the structure of URL with an example.   (3)

   (d) What do you mean by sample size in terms of digital audio?   (2)

P.T.O.

(e) Describe hypermedia and hypertext with example.

(4)

(f) What is 3-D Modeling?

(2)

(g) What is auto tracing?

(2)

(h) Explain the inline method of applying style sheet to an HTML document.

(2)

(i) Describe animating text in multimedia.

(2)

(j) Describe any two attributes of <font> tag in HTML.

(2)

(k) Explain the <hr> tag in HTML.

(2)

2. (a) What do you understand by MIDI Audio? How is it different from Digital Audio?

(6)

(b) Why is Cascading Style Sheet (CSS) preferred over the deprecated HTML?

(4)

3. (a) Describe the software commonly used in making multimedia projects.

(7)

(b) Explain various ways to make your text look attractive.

(3)

4.   (a) Describe various methods of delivering multimedia.

                                                  (4)

   (b) Which input and output devices are the most suitable for the image, audio and video component in Multimedia. Justify.   (6)

5.   (a) Create an Admission form in HTML as per the details given below :

       (i) Name and address of the applicant appearing in text box

       (ii) Courses applied for as radio button (Any 3 courses)

       (iii) Use check boxes to mention 3 Hobbies

       (iv) Use text area for comments

       (v) Use Drop down box for mention the state (Any 5 states)

       (vi) Submit button for submitting the form

       (vii) Use Reset button for resetting the form.

                                                  (7)

P.T.O.

(b) Explain the <img> tag in HTML and **any 2** attributes. (3)

6. (a) Differentiate between vector drawn and bitmap images. (6)

(b) How are frames created in HTML? Explain with suitable HTML code. (4)

7. (a) Write HTML code to create the following table. (7)

XYZ Ltd Company Sales During 2021-2022

Year	Sales		
	Delhi	Mumbai	Total
2021	Rs. 10 crore	Rs. 5 crore	Rs. 15 crore
2022	Rs. 20 crore	Rs. 12 crore	Rs. 32 crore

(b) Describe XML in multimedia with example. (3)

8. (a) Differentiate between :

    (i) Kinematics vs Inverse Kinematics

    (ii) Cell padding vs Cell spacing

    (iii) Interlacing and Progressive Scan   (6)

(b) Explain the techniques used in cel animation.

    (4)

9. (a) What do you understand by internal and external linking in HTML? Explain with examples.   (5)

(b) Explain 2D, 2-1/2 and 3 D Animation in detail.

    (5)

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 1628   A

Unique Paper Code   : 42347610

Name of the Paper   : Computer Networks

Name of the Course   : B.Sc. (Programme) DSE

Semester   : VI

Duration : 3 Hours   Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. The paper has **two** sections.

3. **All** questions in 'Section A' are compulsory.

3. Attempt any **five** questions from 'Section B'.

4. Parts of a question must be answered together.

SECTION A

1. (a) What is a WAN in computer networks? Explain with an example.   2

   (b) Which layer provides   2
   i. user services such as electronic mail, remote file access and transfer.
   ii. transmission of bit streams across Physical media.

   (c) What is zero compression in IPv6 Colon Hexadecimal Notation? Write the address   2
   AB0F:0:0:0:0:0:0:C8 using Zero compression.

P.T.O.

(d) In which mode of communication can data flow in one direction only? Give an example.   2

(e) List different characteristics of a data communication system.   2

(f) How will you differentiate between a single-bit error with a burst error? explain with an example.   3

(g) What is the bandwidth-delay product of a link with a bandwidth of 50 kbps and a one-way transit time of 300 msec? Calculate the optimum window sizes for a sliding window protocol for the link.   3

(h) Briefly explain how a repeater extends a LAN. Is it an analog or a digital device?   3

(i) What is byte stuffing? How does it solve the problem of resynchronization after an error occurs? Given the output after byte-stuffing: FLAG A B ESC ESC C ESC ESC ESC FLAG ESC FLAG D F FLAG. What is the original data?   3

(j) In which type of communication, the media needs to be dedicated between devices. How is it better than the others?   3

SECTION B
(Attempt any five)

2. (a) Explain OSI reference model and compare it with TCP/IP model.   6

(b) Differentiate the following transmission technologies: 4
     1. Broadcasting
     2. Point to Point

3. (a) Explain the four characteristics and five components of a data communication system diagramatically.   6

(b) For each of the following four networks, discuss the consequences if a connection fails.   4
     i. Seven devices arranged in a bus topology
     ii. Six devices arranged in a star topology (not counting the hub)
     iii. Ten devices arranged in a mesh topology
     iv. Five devices arranged in a ring topology

4. (a) Write short notes on :-   6
     i. Radio transmission
     ii. Microwave transmission
     iii. Infrared wave transmission

(b) Write down the comparison between fiber-optics and twisted-pair cable.   4

5. (a) Suppose that a message 1100 1001 0011 1010 is transmitted using Internet   6
Checksum (4-bit word). What is the value of the checksum? What kind of errors
will not be detected by this Checksum? Give an example.

(b) Given the following network topology, construct a sink tree for router A keeping   4
the optimality principle in mind.
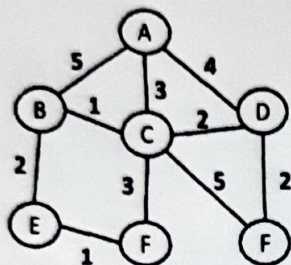
6. (a) Create a system of 3 LANs with 4 bridges. the bridges (B1 to B4) connect the LAN   6
as follows:
   i. B1 connects LAN1 and LAN2
   ii. B2 connects LAN1 and LAN3
   iii. B3 connects LAN2 and LAN3
   iv. B4 connects LAN1, LAN2 and LAN3
   Choose B1 as the root bridge. Show the forwarding and blocking ports after
   applying the spanning tree procedure.

(b) Which one has more overhead, a router or a switch? Explain your answer.   4

7. (a) Assume you are given the assignment of setting three different computer labs with   6
100 machines, 48 machines, and 53 machines in each lab. You talked to the
network administrator and was given 128.198.63.0/24 subnet for these three labs.
What are the three subnets address and three gateway IP addresses you would like
to assign to those three subnets? What is the broadcast address for these three
subnets?

(b) Distinguish between the data and the control connection in the File Transfer   4
Protocol.

8. (a) What are connection-oriented and connectionless services? Explain each with an   6
example?

(b) Explain the connection between a Web page and HTML.   4

9. (a) Differentiate the following:
   i. Flow control and Error control   6
   ii. Switches and Gateways

(b) Why is caching an important optimization for web access? Describe the steps taken   4
      by a browser to determine whether to use an item from its cache or not.