

**B.E. PRINTING ENGINEERING THIRD YEAR SECOND SEMESTER EXAM 2022
MULTIMEDIA COMMUNICATION(HONS.)**

Time : 3 hrs

Full Marks: 100

CO1, CO2 and CO5 (Answer any three of the following questions)

1. Which do you think has less detectable flicker, PAL in Europe or NTSC in North America? Justify your answer. Distinguish between component, composite and S video signal format. Digital video uses chroma subsampling. What is the purpose of this? Why is it feasible?

(5+6+9=20)

2. Compare between hypermedia and multimedia. What is authoring tool and Mention any three useful authoring tools and Briefly discuss about the features of authoring tools? Identify three novel applications of the Internet or multimedia applications. Discuss why you think these are novel. Mention three file formats used for audio , video and animation.

(3+(2+1+5)+5+4=20)

3. Differentiate between bitmap font and vector fonts with suitable example. Discuss the different types of software required for implementing a multimedia production. How will you distinguish between linear and non-linear multimedia? Consider an image of dimensions 1024X768 and color depth of 16 bits. If this image is to be transmitted along a 56kbps line from web server, calculate how long it would take before the entire image is visible on the screen. Explain how dithering improve image quality?

(4+4+3+4+5=20)

4. Briefly explain why we need to be able to have less than 24-bit color and why this makes for a problem. Generally, what do we need to do to adaptively transform 24-bit color values to 8-bit ones? What are the parameters of Monitor required for the appearance of an image and briefly explain with the suitable example? Write down the basic principal of LCD? Find out the aspect ratio of the raster system using 8 " X10 " screen and 100 pixel/inch?

(6+6+5+3=20)

5. Short Note: (a) WWW (b) Anticipation and Staging (c) Straight ahead and pose to pose animation (d) Key framing and tweening (e) Common Intermediate format

(4X5=20)

CO3 and CO4 (Answer any two of the following questions)

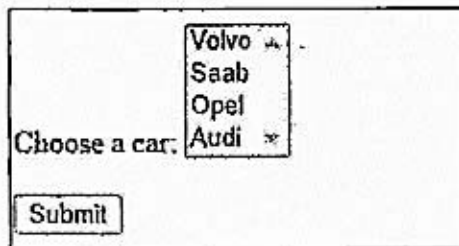
6. What is the main difference between the OSI and TCP/IP reference models? Briefly explain about the types security threats and Name a technique which is used to secure the data? Define SMTP, HTTP and FTP. What are the advantages of client server model?

(5+6+6+3=20)

P.T.O

7 What is meant by compression and CODEC? Explain how data is compressed using Huffman Encoding scheme? Use Huffman coding to derive a codeword set $A_x = \{a, b, c, d, e\}$ and $P_x = \{0.25, 0.25, 0.2, 0.15, 0.15\}$. In relation to JPEG compression scheme explain the following - Block preparation, Quantization and Zig-Zag Scanning (4+(4+4)+8=20)

8. What are tags and attributes in HTML? How can we club two or more rows or columns into a single row or column in an HTML table? Difference between link tag <link> and anchor tag <a>? Create a form using login details, radio button, and drop down list. Write the syntax for selection of multiple option of the below mentioned output:



The image shows a screenshot of an HTML form. On the left, there is a text label "Choose a car:". To its right is a dropdown menu with a small arrow icon on the right side. The dropdown menu is open, showing four options: "Volvo", "Saab", "Opel", and "Audi". Each option has a small arrow icon next to it, indicating that multiple selections are allowed. Below the dropdown menu is a "Submit" button.

((2+4+2)+6+6=20)