

C6-R4 : MULTIMEDIA SYSTEMS**NOTE :**

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time : 3 Hours**Total Marks : 100**

1.
 - (a) Explain the problems of putting animation on the web.
 - (b) Why mp4 is important in multimedia coding ?
 - (c) What are the three layers of IEEE 1394 ?
 - (d) Differentiate between synchronous and asynchronous mode of transmission.
 - (e) Describe the term QoS & its importance in multimedia.
 - (f) Differentiate between augmented reality and virtual reality.
 - (g) Explain components of MIDI in brief. (7x4)
2.
 - (a) How does the human eye sense color ? What characteristics of the human visual system can be exploited for the compression of color images and video ?
 - (b) Briefly describe, using a suitable diagram if necessary, the MPEG-1 audio compression algorithm, outlining how frequency masking and temporal masking are encoded.
 - (c) Different colour models are often used in different applications. What is the CMYK colour model ? Give an application in which this colour model is mostly used and explain the reason. (5+4+9)
3.
 - (a) Explain the real-time challenge in multimedia networking. Draw the format of RTP header fields.
 - (b) Illustrate the quantization technique in JPEG compression scheme explaining its importance.
 - (c) Give three real time examples where virtual reality is applied. (6+6+6)
4.
 - (a) Which MPEG version is known as "Multimedia Content Description Interface" ? Illustrate some essential characteristics of that MPEG framework.
 - (b) Why MMX processor is efficient ? Write two other properties of MMX.
 - (c) How RTP, RTCP and RTSP are different ? (6+6+6)
5.
 - (a) Multimedia production process consists of different strategies in the planning and project management. Illustrate such strategies.
 - (b) Give the block diagram of Conceptual Model of a VRML Browser. Write the header syntax of a VRML file. (9+9)

6. (a) Why should you use an authoring system ? What are the differences between Authoring Vs Programming ? What are the different authoring paradigms ?
(b) Differentiate between the BMP, JPG, GIF and TIFF image file formats mentioning where each is used ? (9+9)
7. (a) What do you understand by holographic display ? Explain.
(b) Briefly discuss the advantages of HDTV system over the other Television system.
(c) What are the main characteristics required for operating system to support multimedia data ? (6+6+6)

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