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<b>KLNCIT</b>	<b>CLASS TEST QUESTION</b>	Format No.:ACD11A-I
		Issue No. :01
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**Subject Code/Subject Name** : IT6003 – Multimedia Compression Techniques**Class test No.** : I**Year and Branch** : IV / IT**Total marks** : 25**Date** : 21.07.2017**Duration** : 50mins**I. Course outcomes, Question Number, Marks**

COs	CO1	CO2	CO3	CO4	CO5
<b>Q.Nos</b>	1,2,3,4,5,6(a)/6(b)	-	-	-	-
<b>Marks (Max)</b>	25	-	-	-	-

**II. Knowledge skill outcomes**

Level	Remember (K1)	Understand (K2)	Apply (K3)	Analysis (K4)	Evaluate (K5)	Create (K6)
<b>Q.Nos</b>	1,4,5,	2,3, 6(a)/6(b)	-	-	-	-
<b>Marks (Max)</b>	6(6)	4,15/15 (19/19)	-	-	-	-

**PART – A****5 × 2 = 10 Marks****Answer all the questions**

1. What is dithering? (K1)
2. Summarize the properties of Sound. (K2)
3. Compare Vector drawn and Bitmaps (K2)
4. What is Hypermedia and Hypertext? (K1)
5. Why do we need Multimedia? (K1)

**PART – B****1 × 15 = 15 Marks**

6. (a) Outline the Skill set, Roles and Responsibilities of Multimedia Team (K2)

(OR)

- 6.(b) Explain the concept behind Video and various broadcast video standards. (K2)

**Answer all the questions****1. What is dithering? (K1)**

Dithering is the attempt by a computer program to approximate a color from a mixture of other colors when the required color is not available. For example, dithering occurs when a color is specified for a Web page that a browser on a particular operating system can't support.

**2. Summarize the properties of Sound. (K2)**

Sound waves are often simplified to a description in terms of sinusoidal plane waves, which are characterized by these generic properties:

- Frequency, or its inverse, wavelength.
- Amplitude, sound pressure or Intensity.
- Speed of sound.
- Direction.

**3. Compare Vector drawn and Bitmaps (K2)**

Bitmap (or raster) images are stored as a series of tiny dots called pixels. Each pixel is actually a very small square that is assigned a color, and then arranged in a pattern to form the image. When you zoom in on a bitmap image you can see the individual pixels that make up that image. Bitmap graphics can be edited by erasing or changing the color of individual pixels using a program such as Adobe Photoshop.

Unlike bitmaps, vector images are not based on pixel patterns, but instead use mathematical formulas to draw lines and curves that can be combined to create an image from geometric objects such as circles and polygons. Vector images are edited by manipulating the lines and curves that make up the image using a program such as Adobe Illustrator.

**4. What is Hypermedia and Hypertext? (K1)**

Hypermedia is used as a logical extension of the term hypertext, in which graphics, audio, video, plain text and hyperlinks intertwine to create a generally nonlinear medium of information. Hypertext most often refers to text on a computer that will lead the user to other, related information on demand. Hypertext represents a relatively recent innovation to user interfaces, which overcomes some of the limitations of written text. Rather than remaining static like traditional text, hypertext makes possible a dynamic organization of information through links and connections (called hyperlinks).

**5. Why do we need Multimedia? (K1)**

Multimedia finds its application in various areas including, but not limited to, advertisements, art, education, entertainment, engineering, medicine, mathematics, business, scientific research and spatial, temporal applications, Creative industries, Commercial, Entertainment and Fine Arts, Education, Engineering, Industry etc.

**PART – B****6. (a) Outline the Skill set, Roles and Responsibilities of Multimedia Team (K2)**

A multimedia team consists of the following:

- Project manager.
- Multimedia designer.
- Interface designer.
- Writer.
- Video specialist.
- Audio specialist.
- Multimedia programmer.
- Producer for the Web.
- Computer programmers.

The project manager is responsible for:

- The overall development, implementation, and day-to-day operations of the project.
- The design and management of a project.
- Understanding the strengths and limitations of hardware and software.
- Ensuring people skills and organizational skills.

Conveying information between the team and the client.

Multimedia designer - This team consists of:

Graphics designers, illustrators, animators, and image processing specialists who deal with visuals, thereby making the project appealing and aesthetic.

Instructional designers, who make sure that the subject matter is presented clearly for the target audience.

Multimedia designer - This team consists of (continued):

Interface designers, devise the navigational pathways and content maps.

Information designers, structure content, determine user pathways and feedback, and select presentation media.

A video specialist needs to understand:

- The delivery of video files on CD, DVD, or the Web.
- How to shoot quality video.
- How to transfer the video footage to a computer.

How to edit the footage down to a final product using digital nonlinear editing system (NLE).

An audio specialist is responsible for:

- Locating and selecting suitable music talent.
- Scheduling recording sessions.

Digitizing and editing recorded material into computer files.

(OR)

6.(b) Explain the concept behind Video and various broadcast video standards. (K2)

Digital video has supplanted analog video as the method of choice for making video for multimedia use. While broadcast stations and professional production and postproduction houses remain greatly invested in analog video hardware (according to Sony, there are more than 350,000 Betacam SP devices in use today), digital video gear produces excellent finished products at a fraction of the cost of analog.

### **Broadcast Video Standards**

#### **NTSC**

The United States, Japan, and many other countries use a system for broadcasting and displaying video that is based upon the specifications set forth by the 1952 National Television Standards Committee.

#### **PAL**

The Phase Alternate Line (PAL) system is used in the United Kingdom, Europe, Australia, and South Africa. PAL is an integrated method of adding color to a black-and-white television signal that paints 625 lines at a frame rate 25 frames per second.

#### **SECAM**

The Sequential Color and Memory (SECAM) system is used in France, Russia, and few other countries. Although SECAM is a 625-line, 50 Hz system, it differs greatly from both the NTSC and the PAL color systems in its basic technology and broadcast method.