

# **Multimedia Technology Consolidated Question Bank**

## **Note:**

*Questions of 1 mark and 2 marks can be asked interchangeably by altering the complexity*

*Questions of 2 marks and 3 marks can be asked interchangeably by altering the complexity*

## **From Across the Units**

- Full Form of Abbreviations like JPEG, SVG, AVI etc ...
- Definitions of different terminologies

## **UNIT I**

### **1 mark**

- Define multimedia.
- Mention areas where multimedia can be used.
- Examples of application of multimedia in the field of education / Business / Entertainment / Public Places

### **2 marks**

- Define Hypermedia with an example.
- Define multimedia and discuss its application in the different fields.
- What is interactive multimedia? Explain in brief.
- Explain each of the following as an element of multimedia: graphic, audio, video, text, animation
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### **3 marks**

- Give 2 differences of linear V/S non linear with examples for each
- Importance of multimedia in the field of: education / Business / Entertainment / Public Places
- How use of each of the following enhances the quality of information: graphic, audio, video, text, animation

### **5 marks**

- State and explain the applications of multimedia in different fields, viz. education / Business / Entertainment / Public Places

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## **UNIT II**

### **1 mark**

- What is Graphic Media?
- What is Vector Graphics?
- List different graphic file formats.
- What is lossy compression?
- What is lossless compression?
- What are gray scale images?
- List commonly used vector formats.

### **2 marks**

- Define raster graphics. Give examples.
- Mention uses of vector graphics formats.
- What is vector graphics? Give examples.
- What are the advantages of using vector graphics?
- What are the disadvantages of using vector graphics?

### **3 marks**

- What is vector graphics? Explain its advantages.
- What is vector graphics? Explain its disadvantages.
- Write a short note on TIFF file format.
- Write a short note on RGB color model.
- Write a short note on CMYK color model.
- What is vector graphics? Explain its advantages.
- What is vector graphics? Explain its disadvantages.
- Differentiate between lossless and lossy compression.
- Explain any three graphic file formats.

### **5 marks**

- Explain RGB and CMYK colour mode.
- Write short notes on JPEG and RAW file formats of graphic media.
- Explain TIFF file format and also explain when to use or not to use this format.

- Explain RGB and CMYK colour mode.
- Explain GIF and also discuss when to use or not use GIF file format.
- Write a short note on vector graphics.
- Explain any five graphic file formats and their uses.
- Write a note on vector graphics.
- What is vector graphics? Explain its advantages and disadvantages.
- Differentiate between lossless and lossy compression.

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### **UNIT III**

#### **2 marks**

- What is Audio Media?
- Define codec and its use?
- Define
  - Frequency
  - Amplitude
  - Wavelength
- What do you mean by PCM
- Mention 4 different disciplines of audio effects
- Give some examples of common audio formats
- Explain bit rate
- Define
  - Codec
  - Buffering
  - Audio (Sound) effect
- Give some examples of tools used for audio editing.
- Give examples of some common audio formats.
- State Nyquist theorem of sampling in your own words
- Give some examples of
  - Lossless audio format
  - Lossy audio format
- Define Audio Streaming

#### **3 marks**

- Write short notes on Characteristics of sound waves
- Explain
  - sampling rate
  - quantization
- Write a short note on sampling.
- Write short notes on
  - Channels
  - Signedness
  - Endianness
- Calculate Raw data (bit) Rate For 'R' bits sample with sampling frequency 'F' Hz.
- Calculate the size of 16 or 08 bit stereo audio of 't' seconds with sampling rate 's' KHz.
- Mention any 3 benefits of using digital audio.
- Mention the factors on which quality of Digital Recordings depends.
- Define compression and its types
- Write short notes on 'RAW Audio Format'.
- Explain why compression of Audio files is required.
- Define compression rate and compression ratio?
- Explain how sound wave works
- What are the 3 categories of audio files? Explain with examples
- Explain the mechanism of Audio Streaming.
- What are the advantages of Audio Streaming
- What are limitations of Audio streaming
- Give examples of area where audio streaming can be used
- Perform Comparison between any two formats
  - WAVE Format
  - MP3 Format
  - WMA Format
  - OGG Format
- Write short notes on any one of the following
  - RAM Files
  - AIFF Format
- Explain the following audio effects
  - Equalization & Filtering

- Compression & Limiting
- Expansion & Noise Gating
- Delay & Echo
- Reverberation & reverse Echo
- Chorus
- Flanging
- Phasing
- Over drive & Pitch Shift

**5 marks**

- Write short note on digital representation of audio
- What are 3 main characteristics of digital audio? Define and discuss each of them
- Explain any five benefits of using digital audio?
- Explain the mechanism of converting analogue audio to digital audio.
- Define Compression, compression ratio and compression rate. Explain briefly about lossy compression.
- Write short notes on
  - Lossy compression
  - Lossless compression
- Write short notes on the following
  - WAVE Format
  - MP3 Format
  - WMA Format
  - OGG Format
- Explain 4 different disciplines of audio effects briefly.

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**UNIT IV**

**2 marks**

- Define video bit rate and video resolution.
- Define frame rate and container
- What is codec? Give any 2 examples of codecs.
- Define compression and compression ratio

**3 marks**

- Explain container in context of video media?

- What is codec? Why do we need codec.
- Explain different types of compression.
- Difference between intraframe and interframe
- What are advantages of MPEG-4 over SWF file format?
- Explain temporal redundancy
- Explain any 2 video formats
- Explain any 2 video effects.

**5 marks**

- Define codec. Discuss interframe and intraframe compression in brief.
- Write a short note on MPEG-4 file format.
- Discuss SWF file format and explain why MPEG-4 is better than SWF file format?
- Write a short note on the use of Intra, predictive and bidirectional frame.
- Explain
  - MPEG
  - MP4
  - AVI
  - SWF
  - DivX
- What is Video Compression? Explain the different types of compression.
- State the difference between MP4 and MPEG
- Explain video effects.

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**UNIT V**

**2 marks**

- Define Web Based Multimedia
- Define Print Media
- Define Hypermedia
- Other Definitions

**3 marks**

- List advantages and disadvantages of using magazines as media of communications?
- List advantages and disadvantages of using newspapers as media of communications?

- Discuss the following issues related to Multimedia Web sites. (3 marks each)
  - Multimedia content be compressed for use on the Web
  - Choosing a proper Graphic Format
  - Choosing a proper Audio Format
  - Video Streaming
  - Flash Files

**5 marks**

- Differentiate between print media and electronic media.
- Define web-based multimedia and discuss its advantages and disadvantages.
- What do you mean by print media? List advantages and disadvantages of using newspapers as media of communications.
- List at least five file formats used for multimedia on the Web. What kind of data is each used for?
- Discuss the following issues related to Multimedia Web sites.
  - Multimedia content be compressed for use on the Web
  - Choosing a proper Graphic Format
- Define web-based multimedia and discuss its advantages and disadvantages (2 each).
- List advantages and disadvantages of using newspapers as media of communications.
- Discuss advantages and disadvantages of using magazines as media of communications?

**Note: Please go through the entire content of the PPT'S of ALL 5 Units provided to you in your own interest**