

GUJARAT TECHNOLOGICAL UNIVERSITY
DI -5 SEMESTER – OLD PAPER – W23 TO S25 – QUESTION BANK(English)

Subject Name & Code:

Multimedia Technologies- 4350707

Unit I - Fundamentals of Multimedia

Repeated Questions:

1. **Define Multimedia and list its components.**
 - Appeared in: WIN 23 (Q1a, 03 marks), WIN 24 (Q1a, 03 marks)
2. **Classify multimedia software based on its function.**
 - Appeared in: WIN 23 (Q1c, 07 marks), WIN 24 (Q1c, 07 marks)
3. **Explain multimedia applications.**
 - Appeared in: SUM 24 (Q1c OR, 07 marks), WIN 23 (Q1c OR, 07 marks), WIN 24 (Q1b, 04 marks), SUM 25 (Q1c, 07 marks)

Other Important Questions:

1. What is multimedia? Explain Components of multimedia. (SUM 24 - Q1a, 03 marks)
2. Discuss the effects of multimedia in your daily life. (SUM 24 - Q1b, 04 marks)
3. Explain Multimedia software tools. (SUM 24 - Q1c, 07 marks)
4. Describe image data types. (WIN 23 - Q1b, 04 marks)
5. Explain early history of multimedia. (WIN 24 - Q1c OR, 07 marks)
6. Define following terms: Hypermedia, WWW, Internet (SUM 25 - Q1a, 03 marks)
7. Describe image and video editing tools. (SUM 25 - Q1b, 04 marks)
8. Define following terms: Multimedia, Image, Layer (SUM 25 - Q2a OR, 03 marks)

Unit II - Image Editing

Repeated Questions:

1. **Describe types of file format to represent image.**
 - Appeared in: SUM 24 (Q2a, 03 marks), WIN 23 (Q2b, 04 marks)
2. **Explain image data types. / List out various image data types.**
 - Appeared in: SUM 24 (Q2b, 04 marks), WIN 24 (Q2a, 03 marks), SUM 25 (Q2a, 03 marks)
3. **Explain steps for Image Straightening, Cropping, Scaling. / Write steps for Image Straightening, Cropping, and Scaling.**
 - Appeared in: SUM 24 (Q2c, 07 marks), WIN 23 (Q2c, 07 marks)
4. **State the technique of adding text to an image.**
 - Appeared in: SUM 24 (Q2b OR, 04 marks), WIN 23 (Q2a OR, 03 marks)
5. **Explain image editing tool interface. / List the image editing tool interface.**
 - Appeared in: SUM 24 (Q2c OR, 07 marks), WIN 23 (Q2a, 03 marks)

Other Important Questions:

1. What is a layer in image? (SUM 24 - Q2a OR, 03 marks)
2. Discuss concept of layers with its usage. (WIN 23 - Q2b OR, 04 marks)
3. Write steps to implement different image enhancement technique. (WIN 23 - Q2c OR, 07 marks)
4. List out various image enhancement techniques in GIMP. (WIN 24 - Q2a OR, 03 marks)
5. Explain how to add text to an image in GIMP. (WIN 24 - Q2b, 04 marks)
6. What is image straightening? Describe steps for Image Straightening in GIMP. (WIN 24 - Q2c, 07 marks)
7. Explain Lasso Selection tool of GIMP. (WIN 24 - Q2b OR, 04 marks)
8. Describe process of cropping image in GIMP. (WIN 24 - Q2c OR, 07 marks)
9. Describe image file formats. (SUM 25 - Q2b, 04 marks)
10. Write steps to combine multiple images using layers and apply image enhancement technique. (SUM 25 - Q2c OR, 07 marks)
11. Write steps to import a picture of a stationary motorcyclist and apply suitable masking filters and background to enhance it. (SUM 25 - Q2c, 07 marks)

Unit III - Video and Animation

Repeated Questions:

1. **Define: Codec, Resolution, Bit rate.**
 - Appeared in: WIN 23 (Q3a, 03 marks), WIN 24 (Q3a, 03 marks), SUM 25 (Q3a OR, 03 marks)
2. **Illustrate the working of video. / Explain working of digital video.**
 - Appeared in: SUM 24 (Q3b, 04 marks), WIN 23 (Q3b OR, 04 marks), WIN 24 (Q3b, 04 marks)
3. **Explain principles of animation. / Describe principals of Animation.**
 - Appeared in: WIN 23 (Q3b, 04 marks), SUM 25 (Q3b OR, 04 marks)

Other Important Questions:

1. Define: bit rate, frame rate, aspect ratio. (SUM 24 - Q3a, 03 marks)
2. Explain image enhancement technique. (SUM 24 - Q3c, 07 marks)
3. Explain power of motion in animation. (SUM 24 - Q3a OR, 03 marks)
4. How video works? Explain Analog video and digital video. (SUM 24 - Q3b OR, 04 marks)
5. List principals of animation and explain any five. (SUM 24 - Q3c OR, 07 marks)
6. Examine basic principles behind animation. (WIN 23 - Q3c, 07 marks)
7. List video editing tools. (WIN 23 - Q3a OR, 03 marks)
8. Write steps to edit video using trimming, slicing and transitions using any video editing tool. (WIN 23 - Q3c OR, 07 marks)
9. Explain process of split clip and export clip in video editing. (WIN 24 - Q3c, 07 marks)
10. List out various animation file formats. (WIN 24 - Q3a OR, 03 marks)
11. Explain key frames in animation. (WIN 24 - Q3b OR, 04 marks)
12. Explain creation of simple rolling ball animation. (WIN 24 - Q3c OR, 07 marks)
13. Define following terms: Video, Animation, Trimming of video. (SUM 25 - Q3a, 03 marks)
14. Describe basic terminology of video. (SUM 25 - Q3b, 04 marks)
15. Write steps to trim, slice and do the transitions of video using any video editing tool. (SUM 25 - Q3c, 07 marks)
16. Write a steps to apply various audio and video effect on imported video and give a title in a video using appropriate tool. (SUM 25 - Q3c OR, 07 marks)

Unit IV - Multimedia Information Sharing

Repeated Questions:

1. **Discuss unique features of YouTube. / Describe features of YouTube.**
 - Appeared in: SUM 24 (Q4b OR, 03 marks), WIN 23 (Q4b, 04 marks), SUM 25 (Q4b, 04 marks)
2. **Explain Cloud computing for multimedia services. / Illustrate cloud computing for multimedia services.**
 - Appeared in: SUM 24 (Q4c OR, 07 marks), WIN 23 (Q4b OR, 04 marks), SUM 25 (Q4c, 07 marks)
3. **Define following terms: Social Media Sharing, Cloud Computing and Meta Data.**
 - Appeared in: WIN 23 (Q4a, 03 marks), SUM 25 (Q4a OR, 03 marks)

Other Important Questions:

1. Explain online social networking (OSN). (SUM 24 - Q4a OR, 03 marks)
2. Explain animation techniques and file formats. (SUM 24 - Q4c, 07 marks)
3. Explain User-generated media content sharing. (SUM 24 - Q4b, 03 marks)
4. Explain characteristics of YouTube. (SUM 24 - Q4c OR, 04 marks)
5. List out online platforms for social media sharing. (WIN 24 - Q4a, 03 marks)
6. Explain metadata on YouTube. (WIN 24 - Q4b, 04 marks)
7. Describe process of user-generated media content sharing. (WIN 24 - Q4c, 07 marks)
8. List out online platforms which focus on User-Generated Content (UGC). (WIN 24 - Q4a OR, 03 marks)
9. Explain any two characteristics of YouTube video. (WIN 24 - Q4b OR, 04 marks)
10. Explain Cloud-Assisted Media Sharing. (WIN 24 - Q4c OR, 07 marks)
11. Prepare comparison chart for the key differences between YouTube videos and the traditional movies / TV shows. How would they affect content distribution? Also identify the building blocks related to the multimedia which used in Youtube. (WIN 23 - Q4c, 07 marks)
12. List characteristics of YouTube video. (WIN 23 - Q4a OR, 03 marks)
13. Write case study on Netflix as a cloud assisted media sharing. (WIN 23 - Q4c OR, 07 marks)
14. Write full form of UGC, OSN and JPEG. (SUM 25 - Q4a, 03 marks)
15. Describe online social media sharing. (SUM 25 - Q4b OR, 04 marks)
16. Write case study on YouTube as a content distribution partner. (SUM 25 - Q4c OR, 07 marks)

Unit V - Augmented Reality and Virtual Reality

Repeated Questions:

1. **Define Augmented Reality and Virtual Reality.**
 - Appeared in: SUM 24 (Q5a, 03 marks), SUM 25 (Q5a OR, 03 marks)
2. **Discuss applications of Augmented Reality. / List Application of AR and VR.**
 - Appeared in: SUM 24 (Q5b, 04 marks), SUM 25 (Q5a, 03 marks)
3. **Describe working of Augmented Reality with its components. / Describe working of Virtual Reality with its components.**
 - Appeared in: SUM 24 (Q5c, 07 marks), WIN 23 (Q5c, 07 marks), WIN 23 (Q5c OR, 07 marks), SUM 25 (Q5c, 07 marks), SUM 25 (Q5c OR, 07 marks)
4. **Differentiate : AR AND VR. / Differentiate Augmented Reality, Virtual Reality and Mix Reality.**
 - Appeared in: SUM 24 (Q5c OR, 07 marks), SUM 25 (Q5b, 04 marks)

Other Important Questions:

1. Define Mixed Reality with example. (SUM 24 - Q5a OR, 03 marks)
2. Discuss applications of virtual reality. (SUM 24 - Q5b OR, 04 marks)
3. Describe working of virtual reality. (SUM 24 - Q5c OR, 07 marks)
4. Define mix reality, frame rate, aspect ratio. (WIN 23 - Q5a, 03 marks)
5. Explore limitations and challenges that affect the development of AR/VR applications. (WIN 23 - Q5b, 04 marks)
6. Define Animation, analog video, sensory data. (WIN 23 - Q5a OR, 03 marks)
7. Explore software/hardware required for AR/VR technology with specifications. (WIN 23 - Q5b OR, 04 marks)
8. Explain workflow of augmented reality its component. (SUM 24 - Q4b OR, 04 marks) *Note: This question from SUM24 PDF appears under a different unit number but thematically fits here.*
9. Explore limitations and challenges that affect the development of AR/VR applications. (SUM 25 - Q5b OR, 04 marks)
