

- N.B:** (1) Question No.1 is compulsory.
 (2) Answer any **four** from remaining **six** questions.

1. (a) What is Multimedia? How might multimedia be used to improve the lives of its users? How might it influence users in negative ways? What might be its shortcomings? 10
- (b) Construct a Huffman tree for the following five letters:- 10
 A B C D E
 which are listed in decreasing order of frequency of use

Symbol	Frequency
A	15
B	7
C	6
D	6
E	5

Calculate the total number of bits required to transfer these alphabets.
2. (a) Explain types of graphics. Differentiate between vector image and bitmap image. 8
- (b) Discuss the importance of text and ways text can be leveraged in multimedia presentations. 7
3. (a) Explain in details various principles of animation. 8
- (b) What is MIDI audio? Compare and contrast the use of MIDI and Digitized sound in multimedia production. 7
4. (a) List and describe the three different types of authoring systems and discuss the advantages of each one. 8
- (b) Discuss the differences among multimedia, interactive multimedia, hypertext, and hypermedia. 7
5. (a) Discuss the stages of a multimedia project. Define the milestones that mark the completion of the phase. 8
- (b) Explain the process and elements of a multimedia project proposal. 7
6. (a) Discuss different types of multimedia structures and how they might be organized. 8
- (b) What is Compression? Distinguish between lossy and lossless compression techniques. 7
7. Write short notes on following topics (Any Three) 15
 - (a) Animation techniques
 - (b) JPEG
 - (c) CBT
 - (d) Hot Spots, Hyperlinks and buttons