**Note :** 1) All questions are compulsory.
2) Draw neat and labelled diagrams wherever necessary.

**Q. 1    Attempt Any Two :**    10
1) Explain the scope of multimedia.
2) Explain the following applications of multimedia :
    i)   Electronic shopping    ii)  Business
    iii) Computers & Networks    iv)  Travels and Tourism
    v)   Industrial Training
3) What is multimedia playback and multimedia production ? Explain the store requirements of multimedia playback and multimedia production.
4) What is multimedia ? Explain its characteristics.

**Q. 2    Attempt Any Two :**    10
1) What is digital representation ? Explain its need.
2) Explain the concept of SHM.
3) Write a short note on following :
    i)   Seiusaidal waves    ii)  Elementary and composite waves
4) What is Quantization ? Explain the process of quantization.

**Q. 3    Attempt Any Two :**    10
1) Explain the various ways of Insertion of Text.
2) State and explain various types of images.
3) Explain CMYK model.
4) Explain various file formats of images.

**Q. 4    Attempt Any Two :**    10
1) Explain various fundamental characteristics of sound.
2) Differential between LCD and LED.
3) What is psycho-acoustics ? Explain amplitude masking.
4) What is sound ? What are the two ways of acoustical measurements ? Explain temporal masking.

**Q. 5    Attempt Any Two :**
1) What is Huffman Coding ? Explain with example.
2) Explain types of compression.
3) Explain the technique of Run Length Encoding.
4) What is compression ? Explain the need for compression.

P.T.O.

**Q. 6**   **Attempt Any two :**

1) Explain various issues in Multimedia Technical and visual Design.

2) Explain various multimedia Authoring Metaphors.

3) Write short notes on following :

   i)   Adobe Premier            ii)   Macromedia Flash

4) What is Authoring System ? Explain its need.

**Q. 7**   **Attempt any three :**

1) Write a short note Hypertext.

2) Explain the concept of MMDB.

3) Write a short note on following :

   i)   Temporal and Spatial Wave

   ii)   Speed and Periodicity

4) Explain various raster scanning principles.

5) Write a short note on fonts.

6) Explain the concept of Automatic Authoring,

—— The End ——