

**B.Sc. (Part-III) Semester-VI Examination**  
**6S : COMPUTER APPLICATION/INFORMATION TECHNOLOGY**  
**(Computer Graphics, Multimedia and Animation)**

Time : Three Hours]

[Maximum Marks : 80

**N.B. :-** (1) All questions are compulsory.

(2) Assume suitable data wherever necessary.

(3) Illustrate your answer with the help of neat sketches.

(4) Question 1 carries 8 marks and all other questions carry 12 marks.

I. (A) Fill in the blanks :

(i) DDA is an abbreviation for \_\_\_\_\_.

(ii) JPEG stands for \_\_\_\_\_.

(iii) LCD stands for \_\_\_\_\_.

(iv) A process of changing the position of an object in a straight line path from one co-ordinate to other is called \_\_\_\_\_.

2

(B) Choose correct alternative :

(i) Using the \_\_\_\_\_ transformation, an object can be repositioned along a circular path.

(a) Scaling

(b) Rotation

(c) Translation

(d) None of these

(ii) \_\_\_\_\_ refers to the application that involves more than one type of media such as text, graphics, video, sound.

(a) Desktop publishing

(b) Hypertext

(c) Multimedia

(d) Many media

(iii) Which of the following is not a video file extension ?

(a) mp4

(b) avi

(c) jpg

(d) mov

(iv) \_\_\_\_\_ is not display type.

(a) LED

(b) LCD

(c) Plasma

(d) Light pen

2

(C) Answer in **one** sentence :

(i) What is VDT ?

(ii) Define Hypermedia.

(iii) What is SGML ?

(iv) List out multimedia software tools.

4

2. (a) State and explain the difference in Raster scan display and Vector scan display. 6  
 (b) Explain virtual reality system. 6
- OR**
3. (a) Explain 3D viewing system. 6  
 (b) Explain :  
 (i) Random scan display  
 (ii) Joysticks. 6
4. (a) Explain Bresenham's line drawing algorithm. 6  
 (b) What is grayscale system ? Explain four level grayscale level system 6
- OR**
5. (a) What is curve ? State and explain its attributes. 6  
 (b) Write an algorithm for generation of circle. 6
6. (a) What is composite transformation ? Explain. 6  
 (b) Explain the procedure used for area filling. 6
- OR**
7. (a) Explain character attributes. 6  
 (b) Explain scaling transformation. 6
8. (a) What is sequencing ? Explain. 6  
 (b) Describe various graphics and image editing tools 6
- OR**
9. (a) What is music notation ? Describe the music notation tools. 6  
 (b) Describe various formats used for storing images. 6
10. (a) What is compression ? Explain. 6  
 (b) What is the need of virtual reality system ? Explain. 6
- OR**
11. (a) What is hypertext ? Explain. 6  
 (b) Explain :  
 (i) VCR  
 (ii) Head mounted display. 6
12. (a) What are the steps taken for generation of an animation ? Explain. 6  
 (b) What is Tweening ? Explain. 6
- OR**
13. (a) Describe the process of motion tweening in animation. 6  
 (b) Explain the various types of 2D-animation. 6