

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

Time : Three Hours]

[Maximum Marks : 80

**Note :—** (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 each.

1. (A) Fill in the blanks :— 2
    - (i) DDA algorithm is used to generate \_\_\_\_\_.
    - (ii) Zip files are \_\_\_\_\_ files.
    - (iii) CRT stands for \_\_\_\_\_.
    - (iv) Scanner is \_\_\_\_\_ device.
  - (B) Choose the correct alternative :— 2
    - (i) \_\_\_\_\_ is used to store data temporarily.
 

(a) Buffer	(b) Flash memory
(c) RAM	(d) All of the above
    - (ii) Transformation allow to perform \_\_\_\_\_.
 

(a) Translation	(b) Rotation
(c) Scaling	(d) All of the above
    - (iii) \_\_\_\_\_ is not a file format.
 

(a) PNG	(b) JPEG
(c) BMP	(d) Graph
    - (iv) GUI stands for \_\_\_\_\_.
 

(a) Graphical User Interface	(b) Graphical User Image
(c) Good User Image	(d) Geometric User Interface
  - (C) Answer in **one** sentence each :— 4
    - (i) What is Animation ?
    - (ii) State the components of multimedia.
    - (iii) What is Hypertext ?
    - (iv) Define the term scaling.
  2. (a) Enlist and explain different input devices used in graphics system. 6
  - (b) Explain the raster system. State its advantages and disadvantages. 6
- OR**
3. (a) What are 3D viewing systems ? State and explain its applications. 6
  - (b) Explain :—
    - (i) Touch Panels
    - (ii) Virtual reality system. 6



4. (a) State and explain DAA algorithm. 6  
(b) What is Curve ? Explain its different attributes. 6

**OR**

5. (a) Write the Bresenham's Line algorithm. 6  
(b) Explain :—  
(i) Grayscale level  
(ii) Line attributes. 6
6. (a) How images can be represented in the form of a matrix ? Explain. 6  
(b) What are the area fill attributes ? Explain. 6

**OR**

7. (a) Explain 2D translation transformation using matrix representation. 6  
(b) What is Pattern-fill ? Explain. 6
8. (a) What is Multimedia ? Describe the applications of multimedia. 6  
(b) Explain :—  
(i) Window WMF  
(ii) Digital Audio. 6

**OR**

9. (a) What is Hypermedia ? Explain. 6  
(b) Explain :—  
(i) PDF  
(ii) GGIF  
(iii) PNG 6
10. (a) How multimedia data is compressed ? Explain. 6  
(b) Explain :—  
(i) SGML  
(ii) 3D sound system. 6

**OR**

11. (a) Explain different tools used for virtual reality. 6  
(b) Explain the MPEG standard used for audio-video compressor. 6
12. (a) What is 2D Animation ? Explain. 6  
(b) Explain motion tweening. 6

**OR**

13. (a) What is Animation ? Briefly describe the history of animation. 6  
(b) How Flash is used for animation ? Explain. 6