

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