

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