5962/R21/PMCA12 NOVEMBER 2018

COMPUTER GRAPHICS

Time : Three hours Maximum : 75 marks

PART A — (7 × 5 = 35 marks)

Answer ALL questions, Choosing either (a) or (b)

1. (a) What is CRT? Explain the operation of a shadow mask CRT.

Or

(b) Compare LED and LCD monitors.

2. (a) Explain the functions of Mouse and Light pen devices.

Or

(b) Write down the uses of plotters.

3. (a) What is scaling? Explain with example.

Or

(b) Explain the translation transformation with example.

4. (a) Discuss about area-fill attributes.

Or

(b) Explain about the text clipping techniques.

5. (a) Write down the functions of joystick

Or

(b) Write Sutherland-Hodgman polygon clipping algorithm.

6. (a) Explain about the three-dimensional coordinate system.

Or

(b) Describe the scaling in 3D transformations.

7. (a) Write a depth-buffer algorithm and explain it.

Or

(b) Write a back-face removal algorithm.

PART B — (4 × 10 = 40 marks)

Answer All Questions, Choosing either (a) or (b)

8. (a) Explain any four applications of computer graphics.

Or

(b) Discuss DDA line drawing algorithm in detail.

9. (a) What are the attributes of output primitives? Explain.

Or

(b) Explain about the shearing and reflection transformation.

10. (a) Why do we need clipping? Discuss Cohen-Sutherland algorithm for line clipping in detail.

Or

(b) Explain the segment file organization for a display file system.

11. (a) Describe the three dimensional display techniques.

Or

(b) Explain the implementation of viewing operations.

———————