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Reg. No. :

Code No. : 20993

Sub. Code : GMCS 00
GMSE 00

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2011

Fifth Semester

Computer Science / Software Engineering — Main

COMPUTER GRAPHICS AND MULTIMEDIA

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Random scan displays are designed to draw component lines at of a picture _____ times each second.

- (a) 20 to 40 (b) 30 to 60
(c) 40 to 70 (d) 20 to 50

In beam penetration method, _____ layers of phosphor are usually used.

- (a) 1 (b) 2
(c) 3 (d) 4

The transformation in which an object is moved in a minimum distance path from one position to another is called

- (a) Rotation (b) Replacement
(c) Translation (d) Scaling

_____ controls the basic display properties of output primitives.

- (a) Attribute parameter
(b) Setpixel
(c) Getpixel
(d) None of the above

The region code of a point within the window is _____.

- (a) 1111 (b) 0000
(c) 1000 (d) 0001

6. According to Cohen-Sutherland algorithm, a line is completely outside the window if

- (a) The region codes of line endpoints have same bit position.
- (b) The endpoints region code are non-zero values.
- (c) If L bit and R bit are nonzero.
- (d) The region codes of line endpoints have same bit position.

7. _____ mode is the program and the devices again operate concurrently, but now input devices deliver data to an input queue.

- (a) Sample (b) Request
- (c) Event (d) Response

8. The centre of projection is at a point which is _____ projection.

- (a) Serial (b) Parallel
- (c) Perspective (d) Affinity

9. Adding _____ to objects on your slide not only controls the flow of information, but also adds interest to your presentation.

- (a) background (b) transition
- (c) animation (d) popups

10. _____ is a shorthand representation of music stored in numeric form

- (a) Digital Audio (b) MIDI
- (c) Audio Resolution (d) Mono files

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

(a) Describe the working of DVST.

Or

(b) List the properties of Circle.

(a) Write note on Curve attributes.

Or

(b) Explain the working of composite transformations.

(a) Explain viewing transformation using standard rectangles for the window and view port.

Or

(b) How Line clipping is performed using Non rectangular clip windows?

14. (a) Distinguish between parallel projection and perspective projection.

Or

- (b) Describe the principles of transformation from world to view coordinates.

15. (a) What is meant by multimedia presentation?

Or

- (b) Write note on how sound is used in multimedia.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Describe the principles of Hard Disk Devices.

Or

- (b) Write an DDA algorithm.

17. (a) Discuss the functions used for clipping attributes.

Or

- (b) Describe the 2D Transformation Operations: Scaling.

18. (a) Explain the process of Point Clipping.

Or

(b) Write note on polygon clipping.

19. (a) Write note on Back-face detection methods.

Or

(b) Discuss the Logical classification of Input devices.

20. (a) Illustrate the working principle of Scanner and Sound Card.

Or

(b) Discuss the issues and trends in Multimedia.
