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Question Paper Code: 47202

B.E./B.Tech. DEGREE EXAMINATION, DEC 2020

Seventh Semester

Computer Science and Engineering

14UCS702 - INTERACTIVE COMPUTER GRAPHICS

(Regulation 2014)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

- Describe how pictures are stored in Raster scan system
 - Intensity value
 - Line commands
 - Pixel commands
 - Image Resolution
- _____ is an example of filling object interiors using the odd-even rule to locate
 - Scan-line fill algorithm
 - Parallel line fill algorithm
 - Frame-buffer fill algorithm
 - Mid-point fill algorithm
- A composite transformation matrix can be made by determining the _____ of matrix of the individual transformation.
 - Sum
 - Reflection
 - Difference
 - Product
- The region against which an object is clipped is called a _____.
 - Clip Window
 - Boundary
 - Enclosing rectangle
 - Clip square
- The matrix formulation for rotation in homogeneous coordinates is
 - $P' = T + P$
 - $P' = S * P$
 - $P' = R * P$
 - $P' = dx + dy$
- we can take a view of an object from different directions and different distances
 - Projection
 - Rotation
 - Translation
 - Scaling

7. _____ uses color descriptions that have a more intuitive appeal to a user.
- (a) RGB color Model (b) CMY Color Model
(c) YIQ Color Model (d) HSV Color Model
8. _____ can be produced by interpolating shading patterns across the polygon surfaces to eliminate the presence of polygon edge boundaries.
- (a) Rasterizing (b) Rendering (c) Smoothing (d) None
9. _____ refers to any type of application or presentation that involves more than one type of media, such as text, graphics, video, animation, and sound.
- (a) An executable file (b) Desktop publishing (c) Multimedia (d) Hypertext
10. The GIF standard is limited to _____ color images only.
- (a) 32-bit (b) 24-bit (c) 16-bit (d) 8-bit

PART – B (3 x 8 = 24 Marks)

(Answer any three of the following questions)

11. Explain the architecture of a raster-graphics system with a Display processor. (8)
12. Describe the two dimensional basic transformations (8)
13. What are quadric surfaces? Explain. (8)
14. Discuss the HLS and RGB color models in detail (8)
15. Explain the various common authoring metaphors (8)