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SARDAR PATEL UNIVERSITY
BCA (Semester 5) Examination - 2022

Subject Code: US05DBCA21 || Subject Title: Computer Graphics

Date: 14/11/2022 (Monday)

Time: 10.00 AM To 01.00 PM

Total: 70 Marks

Q.1 Multiple Choice Questions.

[10]

1. _____ Technique is used to modify or interpret existing pictures.
A . Computer Art B. Image Processing C. Visualization D. None of these
2. _____ persistence phosphor is used in animation.
A . Low B. High C. Medium D. Very High
3. Beam penetration displays maximum _____ colors.
A . 4 B. 8 C. 16 D. 32
4. The overall design style for a set of characters is called _____.
A . Character Style B. Face Style C. Type Face D. Character Face
5. _____ style is used to fill an area with selected hatching patterns-parallel lines or crossed lines.
A . Hatch B. Solid C. Patterned D. Hollow
6. A _____ is a transformation that produces a mirror image of an object.
A . Translation B. Reflection C. Rotation D. Shear
7. A scaling transformation alters the _____ of an object.
A . Scale B. Shape C. Size D. Orientation
8. Rotation point is also known as _____.
A . Rotation Angle B. Rotation axis C. Pivot Point D. Translation Vector
9. _____ mode application initiates data entry.
A . Request B. Event C. Sample D. None of these
10. _____ device used for selecting menu options?
A . Locater B. String C. Stroke D. Pick

Q.2 Write Short Answers For Following Questions : [ANY 10]

[20]

1. Explain the term : Resolution
2. State disadvantage of Beam Penetration Method
3. Write full form of LED
4. List various Character Attributes.
5. Explain Gray Scale in short.
6. Differentiate: Bitmap Font and Outline Font.
7. Explain Point Clipping. State condition for clipping a point.
8. Define Viewing Transformation
9. What is Scaling? Also list out its types.
10. Explain String and Valuator?
11. Define : Application Icons and Control Icons?
12. List various Input Modes?

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(P.T.O.)

- Q.3 [A] Explain working of CRT in detail. [05]
[B] List out all input devices and explain any two of them. [05]
- OR
- [A] Define Computer Graphics? Explain a major application area of Computer Graphics. [05]
[B] Explain in detail raster scan. [05]
- Q.4 [A] Write steps for mid-point circle generation algorithm. [05]
[B] Explain flood fill algorithm (8-connected) with example. [05]
- OR
- [A] Write steps for Bresenham line drawing algorithm [05]
[B] Write a note on line attributes. [05]
- Q.5 [A] What is text clipping? List out all types and explain it with example. [05]
[B] What is geometric transformation? List all 2-D geometric transformation and explain any one in detail. [05]
- OR
- [A] Write a short note on viewing pipeline. [05]
[B] Explain in brief sutherland hodgeman polygon clipping algorithm. [05]
- Q.6 [A] List logical classification of input devices and explain any three in detail. [05]
[B] Explain parallel projection and surface rendering as 3D display methods. [05]
- OR
- [A] List interactive picture-construction techniques and explain any three in detail. [05]
[B] Discuss any two general considerations in constructing a user dialog. [05]

==X==

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