

SEAT No. _____

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SARDAR PATEL UNIVERSITY
B. Sc. Examination, SEMESTER-V: DECEMBER-2020
COMPUTER SCIENCE

US05CCSC06 : Computer Graphics and Multimedia

Thursday, 31st December, 2020

Time : 02:00pm to 04:00pm

Total Marks : 70

Q.1 Multiple choice of Question

[10]

- CAD stands for _____.
(a) Computer Aided Design (b) Common Application Design
(c) Common Aided Design (d) Computer Application Design
- _____ produce illustrations for reports for use with projectors.
(a) Computer Art (b) Image Processing
(c) Entertainment (d) Presentation Graphics
- _____ technique is used to modify or interpret existing pictures.
(a) Computer Art (b) Image Processing (c) Visualization (d) None
- In odd-even rule, if the number of polygon edges crossed by this line is odd, then that point is _____ point.
(a) Interior (b) Fully exterior (c) Partially interior (d) Exterior
- In non-zero winding rule, edges count is called _____.
(a) Total Winding counting (b) Edges Number
(c) Winding Number (d) Non-Zero Counting
- The overall design style for a set of characters is called _____.
(a) Character style (b) Face style (c) Typeface (d) Character face
- An area on a display device to which a window is mapped is called a _____.
(a) window (b) viewport
(c) clip window (d) viewing transformation
- A scaling transformation alters the _____ of an object.
(a) size (b) orientation (c) shape (d) none of these
- Audio Jacks are _____ hole connecting interface on the audio cards.
(a) Single (b) Double (c) Both (a) & (b) (d) None of above
- The analog means _____.
(a) continuous varying (b) stepwise varying
(c) non varying (d) none of above

Q.2 Fill up the blank and/or True/False.

[08]

- CRT stands for _____.
- _____ part of CRT is responsible for controlling brightness.
- DDA Stands for _____.
- _____ is the equation for straight line.
- Rotation point is also known as pivot point. [True / False]
- Shear transformation that distorts the shape of an object. [True / False]
- The full form of MIDI is Musical Instrument Digital Interface.
[True / False]
- Sound Cards are basically meant for Digital Audio Recording, Amplification and Playback. [True / False]

[1]

[P.T.O.]

Q.3 Answer the following questions in short (Any 10):

[20]

1. Define Bitmap.
2. Define Normalized device coordinate.
3. Define Resolution.
4. Write only algorithm for Flood Fill operation.
5. Differentiate: Bitmap font and Outline font.
6. Differentiate: serif and sans serif fonts.
7. Define with example Rotation.
8. Define with example Window.
9. Define with example Viewing transformation.
10. List the benefits of Digital Audio.
11. List various facets of multimedia.
12. Explain the need for audio editing.

Q.4 Answer the following questions in LONG (Any 4):

[32]

1. Write note on Data glove and Voice systems input devices.
2. Write note on DVST and Plasma Panel.
3. What is filled area primitive? Write a short note on scan line polygon fill algorithm.
4. Explain Boundary fill algorithm with 4-connected and 8-connected approach.
5. Write a short note on line clipping algorithm.
6. What is geometric transformation? Explain all 2-D geometric transformation in detail.
7. Explain in detail Digital Medium and Sound Channeling.
8. Explain in detail Multimedia Software.

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[2]