SEAT No._____

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SARDAR PATEL UNIVERSITY
External Examination (CBCS)
B. Sc. - Vth Semester (Computer Science)
US05CCSC06: Computer Graphics and Multimedia
16th April, Monday - 2018

Time : 02:00 pm to 05:00 pm

Total Marks :70

Q-1 Select an appropriate option.   10

1. To redraw the picture repeatedly by quickly directing the electron beam over same position is called_____.
    (a) Repeat Directing   (b) Refresh Directing
    (c) Repeat CRT   (d) Refresh CRT

2. The full form of DVST is _____.
    (a) Direct View Storage Tube   (b) Direct View Store Tube
    (c) Direct Viewer Storage Tube   (d) None of these

3. _____ Produce output by either impact or non-impact method.
    (a) Printer   (b) Plotter   (c) MICR   (d) OCR

4. DDA is an algorithm _____.
    (a) To draw a line   (b) To rotate a line
    (c) To draw circle   (d) To draw polygon

5. _____ type has small lines or accents at the end of the main character.
    (a) Symbols   (b) Sans serif   (c) Verdana   (d) Serif

6. The overall design style for a set of characters is called _____.
    (a) Character style   (b) Face style   (c) Typeface   (d) Character face

7. A _____ is a transformation that produces a mirror image of an object.
    (a) Translation   (b) Reflection   (c) Rotation   (d) Shear

8. _____ Transformation that distorts the shape of an object.
    (a) Translation   (b) Shear   (c) Rotation   (d) Scaling

9. The analog means _____.
    (a) Continuous varying   (b) Stepwise varying
    (c) Non varying   (d) None of above

10. Audio Jacks are _____ hole connecting interface on the audio cards.
    (a) Double   (b) Single   (c) Both (a) & (b)   (d) None of these

(P.T.O.)

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Q-2 Answer the following questions. (Attempt any **TEN**) 20

1. What is CAD?
2. What is Random–Scan Displays?
3. Define the following terms: (i) Aspect Ratio (ii) Horizontal Retrace
4. List the joins used when two line intersect. Explain any one.
5. Differentiate: Bitmap font and Outline font.
6. What is inside-outside test?
7. Explain point clipping. State condition for clipping a point.
8. Define : (i) Reflection   (ii) Viewport
9. What is Viewing Pipeline? Explain.
10. What is Multimedia?
11. List various facets of Multimedia and explain.
12. List the categories of Multimedia.

Q-3
(a) Write detailed note on 'Major Applications of Computer Graphics'. 5
(b) Write short note on Beam Penetration and Shadow Mask methods. 5

OR

Q-3
(a) Explain working of CRT in detail. 5
(b) List all types of input devices and explain any two in detail. 5

Q-4
(a) Write detail note on Bresenham line drawing algorithm. 5
(b) Write a short note on Character Generation. 5

OR

Q-4
(a) Write a note on Line Attributes. 5
(b) List and explain various fill style used in area fill primitives. 5

Q-5
(a) What is geometric transformation? List all 2-D geometric transformation and explain any one in detail. 5
(b) Explain window-to-viewport coordinate window transformation. 5

OR

Q-5
(a) Write detail note on text clipping. 5
(b) Explain in detail Sutherland Hodgeman polygon clipping algorithm. 5

Q-6 Write short note: (i) Digital Medium   (ii) Audio Cards family 10

OR

Q-6 Write short note: (i) Content Design Graphics (ii) Computer Animations 10

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