



Course Code: US05CBCA02

Course Title : COMPUTER GRAPHICS

Total Marks: 70

## Q1. Multiple Choice Questions.(Attempt All)

[10]

1. In \_\_\_\_\_ technology picture definition is stored as a set of intensity values.  
A. Random scan  
B. Raster scan  
C. Proper scan  
D. None of the above
2. \_\_\_\_\_ controls the brightness in CRT.  
A. Focusing system  
B. Deflection plates  
C. Control grid  
D. Magnetic coils
3. In Non-zero winding number rule, point is considered exterior if value of winding number is \_\_\_\_\_.  
A. Zero  
B. -1  
C. 1  
D. Non-Zero
4. \_\_\_\_\_ type has small lines or accents at the end of the main character.  
A. Serif  
B. Symbols  
C. Sans-serif  
D. Fonts
5. \_\_\_\_\_ join is accomplished by extending the outer boundaries of each of the two lines until they meet.  
A. Bevel  
B. Miter  
C. Round  
D. Square
6. In a four-level gray scale color system, intensity value of white color is \_\_\_\_\_.  
A. 0.0  
B. 0.33  
C. 1.0  
D. 0.67
7. Scaling geometric transformation \_\_\_\_\_.  
A. alters size  
B. produces mirror image  
C. changes the orientation  
D. None of the above
8. Maximum size of the stage is \_\_\_\_\_ in FLASH.  
A. 2440 \* 2440 pixels  
B. 2550 \* 2550 pixels  
C. 2880 \* 2880 pixels  
D. 2580 \* 2580 pixels
9. \_\_\_\_\_ animation are indicated by a black dot at the beginning keyframe; intermediate frames have a black arrow with a light-green background.  
A. Frame-by-Frame  
B. Shape Tween  
C. Motion Tween  
D. Guided Motion
10. Default background color of stage in FLASH is \_\_\_\_\_.  
A. Red  
B. White  
C. Black  
D. Blue

**Q2. Fill in the blanks and True/False. [One mark each]**

1. Beam penetration method generates \_\_\_\_ number of colors.
2. \_\_\_\_\_ is the equation for straight line.
3. A rotation is applied to an object by repositioning it along a \_\_\_\_\_ path in the xy plane.
4. Extension of flash file is \_\_\_\_\_.
5. Raster scan is also known as calligraphic display. (True/False)
6. Hollow style is displayed in a single color up to and including the borders of the region. (True/False)
7. Area on the display device to which the window is mapped is called Viewport. (True/False)
8. Guided path animation helps object to move on the specific path. (True/False)

**Q3. Answer the following short questions (Attempt any TEN) [Two marks each]**

[20]

1. Define Resolution.
2. List main components of electron gun.
3. List disadvantage of DVST.
4. Write only procedure for Flood Fill algorithm using 4 connected approach.
5. Explain gray scale in brief.
6. List different Geometric Transformations?
7. Define Clipping.
8. Define Translation.
9. Explain window-to-viewport coordinate window transformation.
10. State use of oval and lasso tool.
11. Explain play and stop actions used in FLASH.
12. Define Timeline.

**Q4. Answer the following long questions (Attempt any FOUR) [Eight marks each]**

[32]

1. Explain Cathode Ray Tube in detail with labeled diagram.
2. Explain advantages of Flat panel devices over CRT. Explain any two flat panel devices in detail.
3. Explain Boundary Fill Algorithm and Flood Fill Algorithm (4 Connected approach) in detail with procedure.
4. Explain concept of line drawing in brief. And write steps for DDA line drawing algorithm.
5. List all 2-D Geometric transformations and explain Reflection transformation in detail.
6. Explain in detail Cohen Sutherland line clipping algorithm.
7. Explain tween animations with example in detail.
8. Explain following concepts in detail.
  - i) Frame by Frame animation
  - ii) Onion Skinning