

Graphics With C

Multiple Choice Question & Answers:-

1) What is ZUI in computer Graphics ?

- A Widget
- Logical Enhancement of GUI
- An application that saves memory
- None of above

Answer = A

2) In Bresenham's algorithm, while generating a circle , it is easy to generate?

- One octant first and other by successive reflection
- One octant first and other by successive rotation
- One octant first and other by successive translation
- All octants

Answer = A

3) Why a circle drawn on the screen appears to be elliptical ?

- It is due to the aspect ratio of monitor
- Screen has rectangular shape
- Our eyes are not at the same level on screen
- CRT is completely spherical

Answer = A

4) In bresenhan's algorithm error term is initialized to ?

- 0
- 1
- 1/2
- None of above

Answer = A

5) Which of the following technique is used in Midpoint Subdivision algorithm ?

- Linear search
- Binary search
- Heap sort
- Bubble sort

Answer = B

6) Which of the following clipping algorithm follows the Divide and Conquer strategy?

- 4-bit algorithm

Midpoint algorithm
Cyrus break algorithm
Cohen- Sutherland algorithm

Answer = B

7) A line with endpoints codes as 0000 and 0100 is ?

Partially invisible
Completely visible
Completely invisible
Trivially invisible

Answer = A

8) Choose the correct statement?

Random scan monitors draw a picture one line at a time
The components line of a random scan picture must be refreshed in a particular order
Raster scan monitors draw a picture one line at a time
Random scan method is well suited for displaying shading and color areas

Answer = A

9) Hue of color is related to ?

Luminance
Saturation
Incandescence
Wavelength

Answer = D

10) The phenomenon of having a continuous glow of a beam on the screen even after it is removed is called as ?

Fluorescence
Persistence
Phosphorescence
Incandescence

Answer = C

11) The line $2x-y+4=0$, if clipped against this window will connect the points ?

(0, 1) and (3, 3)
(0, 1) and (2, 3)
(1, 2) and (4, 2)
None of above

Answer = D

12) Reflection of a point about x-axis, followed by a counter-clockwise rotation of 90° , is equivalent to reflection about the line ?

- x = -y
- y = -x
- x = y
- x + y = 1

Answer = C

13) The best hidden surface removal method used for complex scenes with more than a few thousand surfaces is ?

- depth sorting method
- scan line algorithm
- depth buffer algorithm
- octree method
- C and D

Answer = E

14) The point at which a set of projected parallel lines appear to converge is called as a ?

- convergence point
- vanishing point
- point of illusion
- point of delusion

Answer = B

15) The basic element of a picture in volume graphics is ?

- pixel
- volsel
- voxel
- None of above

Answer = C

16) Let R be the radius of a circle. The angle subtended by an arc of length R at the center of the circle is ?

- 1 degree
- 1 radian
- 45 degree
- impossible to determine

Answer = B

17) A bilinear transformation can be simulated by the transformation ?

- transformation, rotation and stretching
- translation and rotation
- rotation, stretching and inversion
- rotation, stretching, inversion and translation

Answer = D

18) A circle, if scaled only in one direction becomes a ?

- parabola
- hyperbola
- ellipse
- remains a circle

Answer = C

19) When several types of output devices are available in graphics installation, it is convenient to use ?

- bundled attributes
- unbundles attributes
- inquiry attributes
- all of above

Answer = A

20) $x = at^2$; $y = 2at$ is the parametric equation of ?

- Circle
- Rectangular hyperbola
- Parabola
- Ellipse

Answer = C

21) In displaying a clipped picture the efficient method is ?

- Clipping against the window and then applying the window transformation
- Applying window transformation and then clipping against the viewport
- Both A and B have the same efficiency
- Efficiency depends on whether the window is an aligned rectangle or not

Answer = D

22) The anti - aliasing technique which allows shift of $1/4, 1/2$ and $3/4$ of a pixel diameter enabling a closer path of a line is ?

- Pixel phasing
- Filtering

Intensity compensation
Sampling technique

Answer = A

23) All the hidden surface algorithms employ image space approach except ?

Back face removal
Depth buffer method
Scan line method
Depth sort method

Answer = A

24) The major components of CRT are ?

Electronic Gun
Phosphorous coated screen
Control electrodes
Deflection yoke
All of above

Answer = E

25) used to regulate the flow of elections in CRT ?

Electronic Gun
Focusing electrode
Control electrode
All of the above

Answer = C

26) The glow given off by the phosphor during exposure of the electron beam is known as ?

Fluorescence
Phosphorescence
Persistence
All of the above

Answer = A

27) Raster is a synonym for the term ?

Array
Matrix
Model
All of above

Answer = B

28) The simply reads each successive byte of data from the frame buffer?

- Digital Controller
- Data Controller
- Display Controller
- All of above

Answer = C

29) Reflection of a point about x-axis, followed by a counter-clockwise rotation of 90°, is equivalent to reflection about the line ?

- $x = -y$
- $y = -x$
- $x = y$
- $x + y = 1$

Answer = C

30) In the raster scan method for transformation, a 90° rotation can be performed by ?

- reversing the order of bits within each row in the frame buffer
- by performing XOR on the frame buffer location
- by copying each row of the block into a column in the new frame buffer location
- None of above

Answer = C

31) Which of the following is an odd function ?

- $f(x) = x^2 - |x|$
- $f(x) = \sin(x) + \cos(x)$
- $f(x) = (x)(ax + 1) / (ax - 1)$
- None of these

Answer = D

32) Oblique projection with an angle of 45° to the horizontal plane is called as ?

- Cabinet projection
- Isometric projection
- Cavalier projection
- None of these

Answer = C

33) The people of the planet Mars designed a scale for measuring the temperature, in which water freezes at 100 units and boils at 250 units. The people of Jupiter designed a scale in which water freezes at 75 units and boils at 300 units. A temperature of 200 units in Mars will measure in Jupiter ?

225
250
175

Answer = B

34) (2,4) is a point on a circle that has center at the origin. Which of the following points are also on circle ?

- (2,-4)
- (-2,4)
- (4,-2)
- (-4,2)
- All of above

Answer = E

35) A cube of side 1 unit is placed such that the origin coincides with one of its vertices and the three axes run along three of its edges. The vertex diagonally opposite to (0,1,0) is ?

- (0,0,0)
- (1,1,0)
- (0,1,1)
- (0,1,1)

Answer = D

36) Which of the following statement is true ?

- Request, sample and event are the three basic modes of input
- Keyboard is a device ideally suited for use in sample mode
- A mouse is typically a device for inputting an absolute position on the screen
- Special graphics hardware support is essential for providing menu-driven user interface to an application

Answer = A

37) Choose the incorrect statement from the following about the basic ray tracing technique used in image synthesis ?

- In this technique rays are cast from the eye point through every pixel on the screen
- In this technique, viewing transformation are not supplied to the scene prior to rendering
- This technique removes hidden surfaces.
- In this technique rays are cast from the light source to the object in the scene

Answer = D

38) Aspect ratio is generally defined as the ratio of the ?

- Vertical to horizontal points
- Horizontal to vertical points
- Vertical to (horizontal + vertical) points

Either A or B , depending on the convention followed

Answer = D

39) The ISO standard for computer Graphics is ?

- Graphics Kernel System
- Graphics Standard System
- Computer graphics standard
- None of above.

Answer = A

40) Examples of Presentation Graphics is ?

- Bar Charts
- CAD
- Line Graphs
- A and C

Answer = D

41) The technique used to summarize the financial, statistical, mathematical, scientific and economic data is ?

- Computer Art
- Image processing
- Presentation Graphics
- None of above

Answer = C

42) Computer generated models of physical, financial and economic systems are often used for ?

- Entertainment
- Quality Control
- Educational Aid
- None of above

Answer = C

43) Special System designed for some training application are known as ?

- GUI
- Simulators
- Video Display Devices
- None of above

Answer = A

44) Computer Graphics models are now commonly used for making ?

- Motion pictures
- Music Videos
- Television shows
- All of above

Answer = D

45) Graphics and image processing technique used to produce a transformation of one object into another is called ?

- Animation
- Morphine
- Half toning
- None of above

Answer = A

46) The amount of light emitted by the phosphor coating depends on the?

- Number of electrons striking the screen
- Speed of electrons striking the screen
- Distance from the cathode to the screen
- None of above

Answer = A

47) The maximum number of points that can be displayed without overlap on a CRT is referred to as ?

- Resolution
- Persistence
- Attenuation
- None of above

Answer = A

48) Gray scale is used in ?

- Monitor that have color capability
- Monitor that have no color capability
- Random scan display
- None of above

Answer = B