

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

- a) Picture
- b) Resolution
- c) Persistence
- d) Neither b nor c

2) The process of digitizing a given picture definition into a set of pixel-intensity for storage in the frame buffer is called

- a) Rasterization
- b) Encoding
- c) Scan conversion
- d) True color system

3) Aspect ratio means

- a) Number of pixels
- b) Ratio of vertical points to horizontal points
- c) Ratio of horizontal points to vertical points
- d) Both b and c

4) On raster system, lines are plotted with

- a) Lines
- b) Dots
- c) Pixels
- d) None of the mentioned

5) An accurate and efficient raster line-generating algorithm is

- a) DDA algorithm
- b) Mid-point algorithm
- c) Parallel line algorithm
- d) Bresenham's line algorithm

6) The disadvantage of lineDDA is

- a) Time consuming
- b) Faster
- c) Neither a nor b
- d) None of the mentioned

7) In Bresenham's line algorithm, if the distances $d_1 < d_2$ then decision parameter P_k is _____

- a) Positive
- b) Equal

- c) Negative
- d) Option a or c

8) The distortion of information due to low-frequency sampling is known as

- a) Sampling
- b) Aliasing
- c) Inquiry function
- d) Anti-aliasing

9) Anti-aliasing by computing overlap areas is referred to as

- a) Area-sampling
- b) Super-sampling
- c) Pixel phasing
- d) Only b

10) The technique that is more accurate method for anti-aliasing lines is

- a) Filtering
- b) Area-sampling
- c) Super-sampling
- d) None

11) The algorithm used for filling the interior of a polygon is called

- a) Flood fill algorithm
- b) Boundary fill algorithm
- c) Scan line polygon fill algorithm
- d) None of these

12) A chain of connected line segments is called a _____.

- A. Polyline
- B. Polysegments
- C. Polygon
- D. Polychain

13) A ploygon in which the line segment joining any two points within the polygon lies completely inside the polygon, is called _____ polygon.

- A. Convex
- B. Concave
- C. Closed
- D. Complete

14) _____ is a basic approach used to fill the polygon.

- A. seed fill
- B. scan fill
- C. A and B
- D. None of these

15) The putpixel function draws the pixel specified_____.

- A. intensity
- B. colour
- C. Size
- D. Shape

16) When a picture is displayed on the display device it is measured in _____co-ordinate system.

- A. World
- B. Physical device
- C. Viewing
- D. Normalized

17) An area on a physical device to which a window is mapped is called a _____.

- A. Window
- B. Segment
- C. Clip
- D. Viewport

18) If both end points of a line are exterior to the clipping window,_____.

- A. the line is interior to the clipping window
- B. the line is not necessarily completely exterior to the clipping window
- C. the line is completely exterior to the clipping window
- D. None of these

19) In Cohen-sutherland subdivision line clipping algorithm, bit 1 in region code is set if _____.

- A. end point of line is to the left of the window
- B. end point of line is to the right of the window
- C. end point of line is to the below of the window
- D. end point of line is to the above of the window

20) In sutherland -Hodgeman polygon clipping algorithm, if the first vertex of the edge is outside the window boundary and the second vertex of the edge is inside then _____ and _____ are added to the output vertex list.

- A. first vertex, second vertex
- B. first vertex, the intersection point of the polygon edge with the window boundary
- C. Second vertex, the intersection point of the polygon edge with the window boundary
- D. None of these

21) In Sutherland-Hodgeman polygon clipping algorithm, if both vertices of the edge are inside the window boundary, then _____ is added to the output vertex list.

- A. first vertex
- B. Second vertex
- C. the intersection point of the polygon edge with the window boundary
- D. None of these

22) A clipping window has coordinates as A(50,10), B(80,10), C(80,40), D(50,40). A line segment has end coordinates (40,15) and (75,45). What will be the end points of the clipped line? Use Cohen – Sutherland Outcode Algorithm.

- A. (23.67,50) and (69.06,40)
- B. (50,23.67) and (69.06, 40)
- C. (50,23.67) and (40,69.06)
- D. None of Above

23) Scale a square ABCD with co-ordinates A(0,0), B(5,0), C(5,5), D(0,5) by 2 units for x-direction and 3-units for y-direction.

- A. A(0,0) , B(10,0) , C(10,15) , D(0,15)
- B. A(0,0) , B(0,0) , C(10,15) , D(0,15)
- C. A(0,0) , B(10,0) , C(10,10) , D(15,0)
- D. None of these

24) In 2D-translation, a point (x, y) can move to the new position (x', y') by using the equation

- a) $x' = x + dx$ and $y' = y + dx$
- b) $x' = x + dx$ and $y' = y + dy$
- c) $X' = x + dy$ and $Y' = y + dx$
- d) $X' = x - dx$ and $y' = y - dy$

25) The two-dimensional rotation equation in the matrix form is

- a) $P' = P + T$
- b) $P' = R * P$
- c) $P' = P * P$
- d) $P' = R + P$

26) Two successive translations are _____

- a) Multiplicative
- b) Inverse
- c) Subtractive
- d) Additive

27) When the line is parallel to the boundaries then what is the value of p_k ?

- a) $p_k < 0$
- b) $p_k > 0$
- c) $p_k = 0$
- d) $p_k = 1$

28) Which surface algorithm is based on perspective depth ?

- a) Depth comparison
- b. Z-buffer or depth-buffer algorithm
- c. subdivision method
- d. back-face removal

29) The method which is based on the principle of comparing objects and parts of objects to each other to find which are visible and which are hidden are called

- a Object-space method
- b. Image-space method
- c. Surface-space method
- d. Both a & b