Computer Graphics Multiple Choice Questions & Answers

COMPUTER GRAPHICS Multiple Choice Questions :-

1. The graphics can be
a. Drawing
b. Photograph, movies
c. Simulation
d. All of these

2. Computer graphics was first used by
a. William fetter in 1960
b. James fetter in 1969
c. James gosling in 1991
d. John Taylor in 1980

3. Types of computer graphics are
a. Vector and raster
b. Scalar and raster
c. Vector and scalar
d. None of these

4. Vector graphics is composed of
a. Pixels
b. Paths
c. Palette
d. None of these

5. Raster graphics are composed of
a. Pixels
b. Paths
c. Palette
d. None of these

6. Raster images are more commonly called
a. Pix map

b. bitmap
c. both a & b
d. none of these

7. Pixel can be arranged in a regular
a. One dimensional grid
b. Two dimensional grid
c. Three dimensional grid
d. None of these

8. The quantity of an image depend on
a. No. of pixel used by image
b. No. of line used by image
c. No. of resolution used by image
d. None

9. Higher the number of pixels,_____ the image quality
a. Bad
b. Better
c. Smaller
d. None of above

10. Several graphics image file formats that are used by most of graphics system are
a. GIF
b. JPEG
c. TIFF
d. All of these

11. EPS image file format is used for
a. Vector graphics
b. Bitmap
c. Both a & b
d. None of these

12. TIFF (tagged image file format)are used for
a. Vector graphics

b. Bitmap
c. Both a & b
d. None of these

13. EPS means
a. Entire post script
b. Entire post scale
c. Encapsulated post script
d. None of these

14. RGB model are used for
a. Computer display
b. Printing
c. Painting
d. None of these

15. CMYK model are used for
a. Computer display
b. Printing
c. Painting
d. None of these

16. Color depth can be defined by _____ which can be displayed on a display unit
a. Bits per pixel
b. Bytes per pixel
c. Megabyte per pixel
d. None of these

17. CRT means
a. Common ray tube
b. Cathode ray tube
c. Common ray tube
d. None

18. Refresh CRT consist of
a. Glass wrapper

b. The phosphor viewing surface
c. The electron gun assembly
d. All of above

19. The electron beam in a color picture tube is refreshed_____ times in a second to make video realistic
a. 15 times
b. 25 times
c. 35 times
d. 45 times

20. DVST means
a. Direct view storage tube
b. Domain view storage tube
c. Direct view store tube
d. None

21. DVST is rarely used today as part of
a. Input device
b. Output device
c. Display systems
d. None

22. In DVST , is there refresh buffer
a. Yes
b. No
c. Both
d. None

23. The electron beam in DVST is designed to draw directly to
a. Phosphor
b. Storage Grid
c. Glass
d. None

24. The second grid in DVST is called
a. Phosphor
b. Storage mesh

c. Collector
d. None

25. Interactive graphics is useful in
a. Training pilots
b. Computer aided design
c. Process control
d. All of these

26. Computer graphics is used in many DTP software as
a. Photoshop
b. Paint brush
c. Both a & b
d. None of these

27. Any CRT based display must be refreshing at least_____ times a second
a. 20
b. 30
c. 40
d. 10

28. The standardization is needed
a. To make application programs more portable
b. To increase their utility
c. To allow them to use in different application environment
d. All of these

29. GKS stands for
a. Graphics kernel system
b. Graphics kernel stands
c. Generic kernel system
d. None of these

30. Random scan systems are designed for

a. Line drawing application
b. Pixel drawing application
c. Color drawing application
d. None of these

31. Two basic technique for producing color display with a CRT are

a. Shadow mask and random scan
b. Beam penetration method and shadow mask method
c. Random scan and raster scan
d. None of above

32. In beam penetration method of color CRT, two layer of phosphor coated are

a. Red and blue
b. Red and green
c. Blue and green
d. None of these

33. In beam penetration method of color CRT, which layer is red and which is green

a. Outer is red and inner is green
b. Inner is red and outer is green
c. Inner is red and inner is green
d. None

34. A shadow mask CRT has _____ phosphor color dots at each pixel position

a. 1
b. 2
c. 3
d. None of these

35. Which technique of color CRT is used for production of realistic image

a. Shadow mask method
b. Beam penetration method
c. Both a & b
d. None of these

36. Beam penetration method is used in
a. Random scan system
b. Raster scan system
c. Both a & b
d. None of these

37. Shadow mask method is used in
a. Random scan system
b. Raster scan system
c. Both a & b
d. None of these

38. The method which uses array of dots for generating a character is called
a. Stoke method
b. Bitmap method
c. Star bust method
d. None of these

39. The division of the computer screen into rows and columns that define the no. of pixels to display a picture is called
a. Persistence
b. Resolution
c. Encapsulated post script
d. None

40. LCD means
a. Liquid crystal displays
b. Liquid crystal data
c. Liquid chrome data
d. None

41. A pixel may be defined as
a. Smallest size object
b. Larger size object
c. Medium size object
d. None of these

42. A position in plane known as
a. Line
b. Point

c. Graphics
d. None of these

43. A line can be represented by
a. One point
b. Two points
c. Three points
d. Four points

44. The process of coloring the area of a polygon is called
a. Polygon filling
b. Polygon flow
c. Aliasing
d. None of these

45. How many types of polygon filling
a. Two
b. One
c. Three
d. Four

46. 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

47. If the pixel is already filled with desired color then leaves it otherwise fills it. this is called
a. Flood fill algorithm
b. Boundary fill algorithm
c. Scan line polygon filling algorithm
d. None of these

48. The process of reducing aliasing is called
a. Resolution

b. Anti aliasing
c. Sampling
d. None of these

49. The problem of aliasing are
a. Staircase
b. Unequal brightness
c. Picket fence problem
d. All of these

50. The technique to minimizing aliasing are
a.Increased no of resolution
b. Modify pixel intensities
c. Super sampling
d. All of these

601-Computer Graphics(MCQ Assignment)

1. What is full form of CAD?
   A. **Committed architecture Designing**
   B. Computer Aided Designing
   C. Computer Art Designing
   D. None of these
2. Presentation Graphics is mainly used for?
   A. Financial Reports
   B. Statistical Reports
   C. Economical Reports
   D. **All of these**
3. A raster image is made up of
   A. Collection of objects
   B. Collection of lines
   C. **Collection of pixels**
   D. Collection of commands
4. Which of the following file format supports animation?
   A. **GIF**
   B. JPEG
   C. BMP
   D. None of these
5. What is full form of PHIGS?
   A. **Programmer's Hierarchical Interactive Graphics System**
   B. Programmer's Hidden Interactive Graphics System

C. Page Hidden Interactive Graphics System
D. Programmer's Hierarchical Input Glide System

6. Full form of CRT is
   A. Card Record Type
   B. Cathode Relay Tube
   C. **Cathode Ray Tube**
   D. Cathode Row Tube
7. What is persistence of Phosphor?
   A. **How long it continues to emit light**
   B. Its color range
   C. Number of RGB in phosphor
   D. Its display rate
8. Which of following is true about pixel?
   A. Smallest individually identifiable screen element
   B. Picture Element
   C. An image is collection of pixels.
   D. **All of these**
9. The quality of display screen is determined by?
   A. Lines
   B. **Resolution**
   C. Price
   D. None of these
10. The ratio of vertical points to horizontal points is called?
    A. Dot-pitch
    B. Resolution
    C. **Aspect ratio**
    D. Pixel
11. How many colors shadow mask method can identify?
    A. Ten
    B. Three
    C. **Four**
    D. Eight
12. Full form of DVST is?
    A. Digital View Straight Tube
    B. **Direct View Storage Tube**
    C. Detail View Storage Tube
    D. Digital View Storage Tube
13. What is full form of LCD?
    A. **Liquid Crystal Display**
    B. Line Circle Display
    C. Liquid Clear Display
    D. None of these
14. A vector graphics image is?
    A. Collection of pixels
    B. **Collection of line drawing commands**

C. Collection of colors
D. None of these

15. A vector graphics image is resolution independent
    A. **TRUE**
    B. FALSE
16. A raster graphics image is resolution dependent
    A. **TRUE**
    B. FALSE
17. A chord in a circle is?
    A. **Any continuous part**
    B. Same as radius
    C. Line segment which touches two endpoints
    D. Center point of the circle
18. The formula for circumference of a circle is
    A. πR^2
    B. **$2\pi R$**
    C. $X^2+y^2=1$
    D. $2/\pi$
19. The line segment that passes through the foci points and terminates on ellipse is called?
    A. Minor Axis
    B. **Major Axis**
    C. Length of Ellipse
    D. None of these
20. Full form of GKS is?
    A. Graphics Keep System
    B. Get Keep System
    C. **Graphics Kernel System**
    D. Graphics Sure System
21. What is slope?
    A. **Vertical Distance Between Points/ Horizontal Distance Between Points**
    B. Horizontal Distance Between Points/ Vertical Distance Between Points
    C. Length of the line
    D. None of these
22. Slope-Intercept equation of line is?
    A. ax+by+c=0
    B. y2-y1=0
    C. x2-x1=0
    D. **y=mx+b**
23. Two non-parallel lines have same slope?
    A. TRUE
    B. **FALSE**
24. Two parallel lines have same slope?
    A. **TRUE**
    B. FALSE
25. The relation between slopes of perpendicular lines is

A. m1=2*m2
B. **m1=-1/m2**
C. m2=m1
D. m1=y1/x1

26. What is frame buffer?
    A. It stores commands of line drawing
    B. **It is an array of pixels**
    C. It stores line styles
    D. None of these
27. What is full form of DDA?
    A. **Digital Differential Analyzer**
    B. Data Definition Analyzer
    C. Digital Data Array
    D. Digital Data Analyzer
28. Which of following line drawing algorithm is based on integer endpoints?
    A. Vecgen
    B. **Bresenham**
    C. Both
    D. None
29. Which of following is not a line cap?
    A. **Miter**
    B. Butt
    C. Round
    D. Projecting Square
30. Which of following is not a line joint?
    A. Miter
    B. Round
    C. **Bevel**
    D. Butt
31. Polygon is?
    A. An open diagram with collection of lines
    B. A figure with exactly two lines
    C. **A closed figure**
    D. None of these
32. A polygon is collection of
    A. Vertices
    B. Edges
    C. **Both**
    D. None
33. In a regular polygon
    A. Number of angels are not equal to number of edges
    B. **Number of angels are equal to number of edges**
    C. Number of vertices are infinite
    D. Number of edges are infinite
34. In a concave polygon

A. **Line joining any two points of polygon does not fall entirely within polygon**
B. Line joining any two points of polygon fall entirely within polygon
C. Number of angels are not equal to number of edges
D. None

35. A point is said to be inside in even-odd method if
    A. Number of intersections on both sides are even
    B. Number of intersections on both sides are not known
    C. **Number of intersections on both sides are odd**
    D. None of these
36. Even-Odd method does not work with overlapped polygons
    A. **TRUE**
    B. FALSE
37. A point is said to be inside winding number method if
    A. Sum of direction values is 0
    B. **Sum of direction values is non-zero**
    C. Both
    D. None
38. Flood fill method works well with overlapped polygons
    A. TRUE
    B. **FALSE**
39. In which method we move down the polygon line after line?
    A. Flood Fill
    B. Boundary Fill
    C. **Scan-line Fill**
    D. All of these
40. Which of the following method uses a stack?
    A. Flood Fill
    B. Scan-line Fill
    C. **Boundary Fill**
    D. Pattern Fill
41. In a square matrix if all entries in leading diagonal are 1 and other are 0, then it is called
    A. Orthogonal Matrix
    B. **Unit Matrix**
    C. Square Matrix
    D. Inverse Matrix
42. What is scaling?
    A. **It alters size of an object**
    B. It changes viewing angle of an object
    C. Both of these
    D. None of these
43. What is translation?
    A. **It changes the position of an object**
    B. It alters size of an object
    C. It changes viewing angle of an object
    D. All of these

44. Reflection produces
    A. Slanted version of the object
    B. **Mirror image of the object**
    C. Double size of an object
    D. All of these
45. What is Shearing?
    A. **It distorts the shape of an object**
    B. It produces an image with a new angle
    C. It produces an image with a new position
    D. It produces mirror image
46. Scaling matrix is
    A. $\begin{bmatrix} S_x & 0 & 0 \\ 0 & S_y & 0 \\ 0 & 0 & 0 \end{bmatrix}$

    B. $\begin{bmatrix} \mathbf{S_x} & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \mathbf{S_y} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

    C. $\begin{bmatrix} S_x & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

    D. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

47. Rotation about origin in clock wise direction matrix is
    A. $\begin{bmatrix} \cos\theta & \sin\theta & 0 \\ \sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix}$

    B. $\begin{bmatrix} \cos\theta & \sin\theta & 0 \\ -\sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix}$

    C. $\begin{bmatrix} \mathbf{\cos\theta} & \mathbf{-\sin\theta} & \mathbf{0} \\ \mathbf{\sin\theta} & \mathbf{\cos\theta} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

    D. $\begin{bmatrix} -\cos\theta & \sin\theta & 0 \\ \sin\theta & -\cos\theta & 0 \end{bmatrix}$

0 0 1

48. Reflection about origin matrix is

A. $\begin{bmatrix} -1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

C. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

D. $\begin{bmatrix} -1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

49. The generalized shearing matrix is

A. $\begin{bmatrix} 1 & sh_y & 1 \\ sh_x & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B. $\begin{bmatrix} \mathbf{1} & \mathbf{sh_y} & \mathbf{0} \\ \mathbf{sh_x} & \mathbf{1} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

C. $\begin{bmatrix} 1 & sh_x & 0 \\ sh_y & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

D. $\begin{bmatrix} 1 & sh_x & 0 \\ sh_y & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix}$

50. The Translation matrix is

A. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B. $\begin{bmatrix} -1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & -1 \end{bmatrix}$

C. $\begin{bmatrix} \mathbf{1} & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \mathbf{1} & \mathbf{0} \\ \mathbf{t_x} & \mathbf{t_y} & \mathbf{1} \end{bmatrix}$

D. $\begin{bmatrix} t_x & 0 & 0 \\ 0 & t_y & 0 \\ 0 & 0 & 1 \end{bmatrix}$

MCQ From MKICS

Unit -1: intro

1. _____is the smallest piece of the display screen which we can control.

A. dots

B. point

C. spot

D. pixel

2. The ISO standard for computer Graphics is ?

DrawComputer graphics standard

Graphics Standard System

Graphics Kernel System

None of above

3. The standardization is needed

a. To make application programs more portable

b. To increase their utility

c. To allow them to use in different application environment

d. All of these

4. GKS stands for

a. Graphics kernel system

b. Graphics kernel stands

c. Generic kernel system

d. None of these

5. GKS was developed by the

a. International standards organization

b. National standard organization

c. Both a & b

d. None of these

6. Examples of Presentation Graphics is ?

a. Line Graphs
b. Bar Charts
c. **Both (a) and (b)**
d. CAD

7) Graphics can be -

jjjjjjjjjjjjjjjjj. Simulation
kkkkkkkkkkkkkkkkkkk. Drawing
lllllllllllllllllll. Movies, photographs

mmmmmmmmmmmmmmmmmmmm. **All of the above**

8. EPS image file format is used for

a. Vector graphics

b. Bitmap

c. Both a & b

d. None of these

9. TIFF (tagged image file format)are used for

a. Vector graphics

b. Bitmap

c. Both a & b

d. None of these

10. EPS means

a. Entire post script

b. Entire post scale

c. Encapsulated post script

d. None of these

11. This is a visual representation of an image?

Charts

Graphics

Frames

Fonts

12) Aspect Ratio can be defined as -

xxxxxxxxxxxxxxxxxxxx. **The ratio of the vertical points to horizontal points**
yyyyyyyyyyyyyyyyyyyy. of pixels

zzzzzzzzzzzzzzzzzzzzz. Both (a) & (b)
aaaaaaaaaaaaaaaaaaaaa. None of the above

Uit-2 graphics system

13. In raster scan display a special area of memory is dedicated to graphics only. This memory area is called _____ & it hold the set of _____ value for all screen points.

a**) Frame Buffer, Intensity**

b) LUT, Canvas

c) Canvas, Output

d) None of the above

14. The algorithm which displays line-type attributes by plotting pixel spans is .....

Raster scan algorithm

Raster line algorithm

Random line algorithm

Random scan algorithm

15. Lower persistence phosphorus needs_____refresh rate

Lower

Higher

Medium

None of these

16. Higher the number 0f pixels,_____ the image quality

a. Bad

b. Better

c. Smaller

d. None of above

17. Which of the following color will generate with the intersection of three primary RGB colors?

zzzzzzzzzzzzzzzzzzzzzzzzzzz. Green

aaaaaaaaaaaaaaaaaaaaaaaaaaa. Dark red

bbbbbbbbbbbbbbbbbbbbbbbbbbb. Dark blue

ccccccccccccccccccccccccccc. **White**

18. The maximum number of points that can be displayed without overlap on a CRT

A. Aspect Ratio

B. Resolution

C. Brightness

D. Pixel

ANSWER: B

19. Each screen point is referred to as_____.

A. Resolution

B. Pixel

C. Persistence

D. Dot Pitch

ANSWER: B

20. _____is the number of points per centimeter that can be plotted horizontally and vertically.

A. Aspect Ratio

B. Pixel Depth

C. Resolution

D. Dot Pitch

ANSWER: C

21. _____is the ratio of horizontal points to vertical points necessary to produce equal length lines in both direction.

A. Dot Pitch

B. Resolution

C. Aspect Ratio

D. Height-Width Ratio

ANSWER: C

22. Vector display is well suited for_____.

A. Animation

B. Line drawing applications

C. Cartoons

D. All of the above

ANSWER: B

23. How many phosphor color dots at each pixel position in a shadow mask CRT?

rrrrrrrrrrrrrrrrr. 1
sssssssssssssssssss. 7
ttttttttttttttttttt. 2
uuuuuuuuuuuuuuuuuuu. **3**

24. Raster Images Are More Commonly Called

Pix Map

Bitmap

Both A & B

None Of These

25. Bitmap image is also known as?

Picture

Photo

Raster Images

None of these

26. DVST stands for ……..

Digital View Storing Table

Direct Visual Storage Tube

Direct View Storage Tube

Digital View Storage Tube

Identify the features of DVST from the following.

a. **Monochromatic, Flicker-free, Low-resolution**

b. Monochromatic, Flicker-free

c. Color screens, Refresh monitors, High-resolution

d. Expensive, Low resolution

27. In vector displays beam is deflected from the endpoint to endpoint and the technique is called___.

A) Raster Scan

B) Random Scan

C) Vector Scan

D) Conversion Scan

28. Random scan monitor can also referred to as_____.

A. **vector displays**

B. stroke writing displays

C. calligraphic displays

D. none of the above

29. CRT means

a. Control ray tube

b. **Cathode ray tube**

c. Common ray tube

d. None

30. Vector Graphics Is Composed Of

Paths

Pixels

Palette

None Of These

31. Random scan systems are designed for

a. **Line drawing application**

b. Pixel drawing application

c. Color drawing application

d. None of these

32. Refresh CRT consist of

a. Glass wrapper

b. The phosphor viewing surface

c. The electron gun assembly

d. All of above

33. The amount of time the phosphor produce light or shineis controlled by chemical composition of the phosphor. This is known as

a. **Persistence**

b. Resistance

c. Generators

d. None

34. Shadow mask method is used in -

fffffffffffffffffff. **Raster scan system**
ggggggggggggggggggggg. Random scan system
hhhhhhhhhhhhhhhhhhhhh. Both (a) & (b)
iiiiiiiiiiiiiiiiiii. None of the above

35. Which of the following uses the Beam penetration method?

bbbbbbbbbbbbbbbbbbbbbb. Raster scan system
ccccccccccccccccccccc. **Random scan system**

ddddddddddddddddddddddd. Both (a) & (b)
eeeeeeeeeeeeeeeeeeeeee. None of the above

36. Select the set of colors produced in the beam-penetration method of the color CRT -

nnnnnnnnnnnnnnnnnnnnnnnnnnn. Red, Green, Blue
ooooooooooooooooooooooooooo. Cyan, Magenta, Blue
ppppppppppppppppppppppppppp. **Red, Green, Orange, Yellow**
qqqqqqqqqqqqqqqqqqqqqqqqqqq. Green, Black, Orange

37. The video device with reduced volume, power consumption and weight is -

bb. CRT
cc. **Flat-panel display**
dd. Portable display
ee. None of the above

38. Plasma panel is also called as -

xxx. Non-emissive display
yyy. Liquid crystal display
zzz. **Gas discharge display**
aaaa. None of the above

39. Raster graphics are composed of _____.

A. Pixels

B. Paths

C. Palette

D. None of these

40. Which type of display is used in digital watches?

LED display

HD display

LCD display

CRT

41. Raster scan is _____ expensive than random scan

a. More

b. Less

c. Both a & b

d. None

42. Two basic technique for producing color display with aCRT are

a. Shadow mask and random scan

b. **Beam penetration method and shadow mask method**

c. Random scan and raster scan

d. None of above

43. In beam penetration method of color CRT, two layer of phosphor coated are

a. Red and blue

b. **Red and green**

c. Blue and green

d. None of these

44. The disadvantage of raster graphics display system is _____.

A. It require large number of frame buffer memory cycles needed for video scan out

B. The burden of image generation is on the main CPU

C. Insufficient frame buffer memory band width

D. All of these

45. In beam penetration method of color CRT, which layer is red and which is green

a. **Outer is red and inner is green**

b. Inner is red and outer is green

c. Inner is red and inner is green

d. None

46. A shadow mask CRT has _____ phosphor color dots ateach pixel position

a. 1

b. 2

c. 3

d. None of these

47. Which technique of color CRT is used for production ofrealistic image

a**. Shadow mask method**

b. Beam penetration method

c. Both a & b

d. None of these

48. What is name of temporary memory where the graphicsdata is stored to be displayed on screen

a. RAM

b. ROM

c. Frame buffer

d. None

49. The division of the computer screen into rows and columns that define the no. of pixels to display a picture is called

a. Persistence

b. Resolution

c. Encapsulated post script

d. None

50. LCD are commonly used in

a. Calculators

b. Portable

c. Laptop computers

d. All of these

51. LCD is an _____ device

a. Emissive

b**. Non emissive**

c. Gas discharge

d. None of these

= = = == =

Unit 3: line generation

52.DDA stands for -

ffffffff. Direct differential analyzer
gggggggg. Data differential analyzer
hhhhhhhh. Direct difference analyzer
iiiiiiii. **Digital differential analyzer**

43 .A line can be represented by

One point

Two points

Three points

Four points

54. From the given list of options, which one is the accurate and efficient line-generating algorithm?

bbbbbbbbbb. Midpoint algorithm
cccccccccc. DDA algorithm
ddddddddd. **Bresenham's Line algorithm**
eeeeeeeee. None of the above

54. What is true about DDA algorithm for scan conversion of a line

A. General purpose method

B. Incremental

C. current calculation is independent of previous step

D. Is slower than the use of line equation

55. In DDA algorithm for scan conversion of line

A. if |m|<=1 then dx=1

B. if |m|>=1 then dx=1

C. if |m|<=1 then dy=1

D. none of the above

56.Which of these is true about Bresenham's Line Algorithm?

A**. Highly efficient incremental method**

B. Uses scan conversion

C. uses integer addition,subtraction and multiplication by 2

D. all of the above

57. In Bresenham's algorithm for scan conversion of line

A. d=2dy-dx

B. d=2dx-dy

C. d=4dy-dx

D. d=4dx-dy

58. Which algorithm is a faster method for calculating pixel positions?

DDA line algorithm

Mid-point algorithm

Parallel line algorithm

Bresenham’s line algorithm

59. In Bresenham's line generation algorithm, the initial value of the decision parameter as p0 = _____,

where slope MOD (m) < 1

A. 2Δy – Δx

B. 2Δy – 2Δx

C. $\Delta x - \Delta y$

D. none of the above

60. The DDA algorithm is a faster method for calculating pixel positions than the direct use of Eq. y = m.x + b.

A. TRUE

B. FALSE

61. A circle, if scaled only in one direction becomes a ?

A. parabola

B. hyperbola

C. Ellipse

D. remains a circle

62 A line segment _____.

A. extends forward

B. extends backward

C. ends at two points

D. extends forever both forward and backward

63. If a line whose end point is (10, 12) and start point is (20, 20), then slope m =?

A. 1.2

B. 0.8

C. -0.4

D. none of the above

64 In DDA line drawing algorithm, dx or dy, whichever is_____, is chosen as one raster unit.

A. 1

B. 0

C. smaller

D. larger

65 Floating point arithmetic in DDA algorithm is_____.

A. time efficient

B**. time consuming**

C. fast

D. slow

66 DDA line drawing algorithm for calculating pixel positions is _____ the direct use of equation y =mx + b.

A. slower than

B. **faster than**

C. of equal speed to that of

D. none of these

67 In Bresenham's line algorithm, if the distances d1 < d2 then decision parameter Pk is_____

A. Positive

B. Equal

C. Negative

D. Option a or c

68 The side effect of scan conversion are

Aliasing

Anti aliasing

Both a & b

None of these

69 The process of reducing aliasing is called

Resolution

Anti aliasing

Sampling

None of these

70 Frame buffer is used to store_____.

A. number if pixels in image

B. **intencities of pixels**

C. image definition

D. co-ordinate values of image

== = = = =

Unit 4

71 The process of coloring the area of a polygon is called

Polygon filling

Polygon flow

Aliasing

None of these

72 The function of scan line polygon fill algorithm are

Find intersection point of the boundary of polygon and scan line

Find intersection point of the boundary of polygon and point

Both a & b

None of these

73 Which of the following algorithm is used to fill the interior of a polygon?

ppppppppppppppppppppppppp. Boundary fill algorithm
qqqqqqqqqqqqqqqqqqqqqqqqq. Scan line polygon fill algorithm
rrrrrrrrrrrrrrrrrrrrrr. **Flood fill algorithm**
sssssssssssssssssssssssss. All of the above

(**Explanation:** When the boundary is of many colors and the interior is to be filled with one color, the flood fill algorithm is used.)

74. Which of the algorithm is used to color a pixel if it is not colored and leaves it if it is already filled?

ddddddddddddddddddddddddd. **Boundary fill algorithm**
eeeeeeeeeeeeeeeeeeeeeeeee. Scan line polygon fill algorithm
fffffffffffffffffffffffff. Flood fill algorithm
ggggggggggggggggggggggggg. All of the above

75 the Boundary fill algorithm checks whether the boundary pixels or adjacent pixels are colored or not. It leaves it, if the adjacent pixel is already filled or colored; otherwise, fill it)

The characteristics of pixels on a given scan line change only where a polygon ____ scan line

(a) Intersects

(b) Unions

(c) Differences

(d) All of the above

76. There are 2 types of polygons. They are?

convex and concave

square and rectangle

hexagon and square

octagon and convex

77. _____ polygon is a polygon in which the line segment joining any two points within the polygon lines completely inside the polygon & its opposite is _____ polygon.

a) Concave, convex

b**) Convex, concave**

78. After checking, the pixels inside the polygon are highlighted. This method of highlighting is ___.

A) Flood Fill algorithm

B) Boundary Fill algorithm

C) Scan line algorithm

D) Fill area algorithm

79. Two basic approaches used to fill the polygon are _____ & _____.

a) **Seed point, the scan line**

b) Raster izaion, scan conversion

c) Seed point, bucket file

d) None of the above

80. A chain of connected line segments is called a _____.

A. Polyline

B. Polysegments

C. **Polygon**

D. Polychain

81. 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

82. A Polygoan in which the line segment joining any two points within the polygon may not lie completely inside the polygon, is called _____ polygon.

A. Convex

B. **Concave**

C. Closed

D. Complete

83. _____ is a method for testing a pixel inside of a polygon.

A. even-odd method

B. winding number method

C. A and B

D. None of these

84. _____ is method for testing a pixel inside of a polygon for an overlapping polygon

A. even odd method

B winding number method

C. none of the above

D. both of the above

85. _____ is a basic approach used to fill the polygon.

A. seed fill

B. scan fill

C. **A and B**

D. None of these

86. The seed fill algorithm for filling polygon is classified as _____ fill algorithm and _____ fill algorithm.

A. flood, boundry

B. even, odd

C. edge, flood

D. boundry, scan

87. In a boundary fill algorithm for filling polygon, boundary defined regions may be either _____ connected or _____ connected.

A. 2,4

B. 4,8

C. 8,16

D. 8,6

88. Seed fill algo for filling polygon is _____ algorithm.

A. **recursive**

B. non-recursive

C. A and B

D. None of these

89. Scan line algorithm for filling polygon is _____ algorithm.

A. recursive

B. non-recursive

C. A and B

D. None of these

90. The end point of polygon are called as_____.

A. Edges

B**. Vertices**

C. Line

D. None of these

91. The line segment of polygon are called as _____.

A. Edges

B. Vertices

C. Line

D. None of these

92. The process of coloring the area of a polygon is called_____.

A. **Polygon filling**

B. Polygon flow

C. Aliasing

D. None of these

93. Which approaches are used for determine whether a particular point is inside or outside of a polygon_____.

A. Even-odd method

B. Winding number method

C**. Both a & b**

D. None of these

94. In scan fill algorithm the scan lines which needs to be considered are from_____.

A. Ymax to ymin of the whole polygon

B. Ymax to ymin of the longest edge of the polygon

C. Ymax to ymin of the shortest edge of the polygon

D. None of these

95. Which things are mainly needed to make a polygon and to enter the polygon into display file_____.

A. No of sides of polygon

B. Vertices points

C. **Both a & b**

D. None of these

Unit 5

96. If the scaling factors values sx and sy are assigned to the same value then

a) Uniform rotation is produced

b) **Uniform scaling is produced**

c) Scaling cannot be done

d) Scaling can be done or cannot be done

97.If the scaling factors values sx and sy are assigned to unequal values then

a) Uniform rotation is produced

b) Uniform scaling is produced

c) **Differential scaling is produced**

d) Scaling cannot be done

98. The process of positioning an object along a straight line path from one coordinate point to another is called -

zzzzzzzzzzzzzz. **Translation**

aaaaaaaaaaaaaa. Reflection

bbbbbbbbbbbbbb. Shearing

ccccccccccccccc. Transformation

99. Which of the following equation is used in 2D translation to move a point(x,y) to the new point (x',y')?

nnnnnnnnnnnnnnn. $x' = x + t_y$ and $y' = y + t_x$

oooooooooooooooo. $x' = x - t_x$ and $y' = y - t_y$

ppppppppppppppppp. **$x' = x + t_x$ and $y' = y + t_y$**

qqqqqqqqqqqqqqqq. $x' = x + t_x$ and $y' = y - t_y$

100 The process of repositioning an object along a circular path is called -

bbbbbbbbbbbbbbbbb. Translation

ccccccccccccccccc. **Rotation**

ddddddddddddddddddd. Scaling

eeeeeeeeeeeeeeeee. None of the above

101. Which of the following is must be specified to generate a rotation?

xxxxxxxxxxxxxxxxxx. Rotational distance

yyyyyyyyyyyyyyyyyy. **Rotation angle**

zzzzzzzzzzzzzzzzzz. Co-ordinates

aaaaaaaaaaaaaaaaaa. None of the above

102. A positive value of the rotation angle -

lllllllllllllllllll. rotates an object in the clockwise direction

mmmmmmmmmmmmmmmmmmmm. **rotates an object in the counter-clockwise direction**

nnnnnnnnnnnnnnnnnnn. Both of the above

ooooooooooooooooooo. None of the above

103) Which of the following transformation is used for altering the object's size?

zzzzzzzzzzzzzzzzzzzz. Translation

aaaaaaaaaaaaaaaaaaaa. **Scaling**

bbbbbbbbbbbbbbbbbbbb. Rotation

ccccccccccccccccccccc. None of the above

104) What happens if the values of scaling factors sx and sy less than 1 (i.e., sx<1 and sy<1)?

rrrrrrrrrrrrrrrrrrrrrrrrr. No change in the object's size

sssssssssssssssssssssssssss. **Reduce the object's size**

ttttttttttttttttttttttttttt. Increase the object's size
uuuuuuuuuuuuuuuuuuuuuuuuuuuuuu. None of the above

105) In which of the following case, the uniform scaling will be produced?

ddddddddddddddddddd.Values of scaling factors sx and sy are unequal.
eeeeeeeeeeeeeeeeee. **Values of scaling factors sx and sy are equal**.
fffffffffffffffff. Both of the above
ggggggggggggggggggg. None of the above

106. The object is displaced a given distance and direction its original position is called

(a) **Translation**

(b) Rotation

(c) Transformation

(d) Scaling

107._____ is the process of expanding or compressing the dimensions of an object.

(a) Translation

(b) Rotation

(c) Transformation

(d) Scaling

108. The two-dimensional scaling equation in the matrix form is

a) P'=P+T

b) **P'=S*P**

c) P'=P*R

d) P'=R+S

109. The objects transformed using the equation P'=S*P should be

a) Scaled

b) Repositioned

c) Both a and b

d) Neither a nor b

110. The matrix representation for translation in homogeneous coordinates is

a) P'=T+P

b) P'=S*P

c) P'=R*P

d) P'=T*P

111. The matrix representation for rotation in homogeneous coordinates is

a) P'=T+P

b) P'=S*P

c) P'=R*P

d) P'=dx+dy

112. What is the use of homogeneous coordinates and matrix representation?

a) **To treat all 3 transformations in a consistent way**

b) To scale

c) To rotate

d) To shear the object

113. If point are expressed in homogeneous coordinates then the pair of (x, y) is represented as

a) (x', y', z')

b) (x, y, z)

c) **(x', y', w)**

114. For 2D transformation the value of third coordinate i.e. w=?

a) 1

b) 0

c) -1

d) Any value

115. The general homogeneous coordinate representation can also be written as

a) (h.x, h.y, h.z)

b) (h.x, h.y, h)

c) (x, y, h.z)

d) (x,y,z)

116. Reflection is a special case of rotation.

a) True

b) False

117. A two dimensional rotation is applied to an object by

a) Repositioning it along with straight line path

b) **Repositioning it along with circular path**

c) Only b

d) Any of the mentioned

MCQ From Bharthana College

Underline option is Correct ANSWER

1 **The graphics can be**

1. Drawing 2. Photographs 3. Simulation 4. All of these

2 Raster graphics are composed of

1. Pixels 2. Paths 3. Palette 4. None of these

3 Color depth can be define by _____which can be displayed on a

displayed on a display unit.

1. Bit per pixel 2. Bytes per pixel 3. Megabyte per pixel 4. None of these

4 GSK stands for

1. Graphics kernel system 2. Graphics kernel stand

3. Generic kernel system 4. None of these

5 A shadow mask CRT has _____ phosphor color dots at a pixel position

1. 1 2. 2 3. 3 4. None of these

6 The process of coloring the area of a polygon is call

1. Polygon filling 2. Polygon flow 3. Aliasing 4. None of these

7 _____ is the rigid body transformation that moves objects without deformation

1. Rotation 2. Scaling 3. Translation 4. None of these

8 The basic geometric transformation are

1. Translation 2. Rotation 3. Scaling 4. All of the mentioned

9 **A scaling transformation change the _____ of an object?**

1. Location 2. Size 3. Shape 4. None of these

10 **A transformation that slant the shape of object is called the _____ .**

1. Reflection 2. Shear transformation 3. Translation 4. None of these

11 **Once the file is saved JPEG. Some data is lost**

1. Temporarily 2. Permanently 3. Both 1and 2 4. None of these

12 **Higher the number of pixels, _____the image quality.**

1. Bad 2. Bette 3. Smaller 4. None of these

13 **Vector graphics are composed of**

1. Pixels 2. Paths 3. Palette 4. None of these

14 **Types of computer graphics are**

1. Vector and raster 2. Scalar and raster 3. Vector and scalar 4. None

15 **In Bresenhan's algorithm error is initialized to ?**

1. 0 2. 1 3. ½ 4. None of these

16 **We control the location of a scale object by choosing**

1. Pivot point 2. Fixed point 3. Differential scaling 4. Uniform scaling

17 **To generate a rotation. We must specify**

1. Rotation angle ø 2. Distance Dx & Dy 3. Rotation distance

18 **A translation is applied to an object by**

1. **Repositioning is along with straight line path**
2. **Repositioning is along with circular path**
3. **Both 1 and 2**
4. **None of these**

19 **The process of changing the position of an object in a straight line path from one**

co-ordinate location to another is called_____

1. Rotation 2 translation 3. Motion 4. None of these

20 **A transformation that produced a mirror image of an object to a axis is called____**

2. <u>Reflection</u> **2. Translation** **3. Rotation** **4. None of these**

MCQ FROM WADIA BCA

Answer is bold character

1.Computer Graphics uses _____

Hardware & software systems	Hardware only	Software only	Hardware or Software

2.What is the extension of windows Bitmap File?			
.wmp	**.bmp**	.png	.mpeg

3.PNG stands for

Picture Network Graphics	**Portable Network Graphics**	Picture New Graphics	Portable New Graymap

4.PHIGS stands for

Programmer's Hierarchical Internal Graphics Standards	Programmed Hierarchical Internal Graphics Standards	Programmed Hierarchical Interactive Graphics Standards	**Programmer's Hierarchi Standards**

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

Computer Art	Image processing	**Presentation Graphics**	None of the above

6. CGM stands for

Computer Graphics Metafile	Commen Graphics Metafile	Corel Graphical Metafile	Core Graphical Manager

7. GKS stands for_____

Graphics Kernel Server	Graphics Kernel Specification	Geographical Kernel System	**Graphics Kernel System**

8 _____ system specifies standards for archiving and transporting pictures.

CGI	PHIGS	PHIGS+	**CGM**

9. DDA stands for

Differential Digital Analyzer	Digital Decision Analysis	**Digital Differential Analyzer**	Digital Differential Analysis

10 In a color raster display, the primary colors are:

red, gray and blue	red, green and black	**red, green and blue**	red, gray and black

11 _____ system draw a picture of one line at a time.

random	vector	**Both A and B**	Neither A nor B

12 Aspect ratio is

The ratio of window to view port height	The ratio of image's intensity levels	**The ratio of image's width to its height**	The ratio of image's height to its width

13 Refresh rate is

The rate at which the number of bit planes are accessed at a given time	The rate at which the picture is redrawn	**The frequency at which the contents of the frame buffer is sent to the display monitor**	The frequency at which the aliasing takes place

14

In color CRT, magenta color is produced with _____ dots

green and red | **blue and red** | green and blue | red, blue and green

15.

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

16.

.----------used to regulate the flow of elections in CRT ?			
Electron gun	Focusing System	**Control grid**	All of the above

17.

In color CRT, yellow color is produced with _____ dots			
green and red	green and blue	blue and red	red, blue and green

18

In a colour raster display the number of electron guns used are:

one	**three**	seven	two

19

Refresh rate on a ___ system depends on the number of lines to be displayed.			
raster-scan	**random-scan**	line-scan	none

20.

An aspect ratio of 4/5 means that a ___ line plotted with four points has the same length as _____ line ploted with five points.			
horizontal, diagonal	vertical, horizontal	vertical, diagonal	horizontal, vertical

21

The intercept is the height at which the line crosses _____

x -axis	**y-axis**	Both x-axis & y-axis	None

22

The slope of the line segment is undefined if ____

a) Parallel to Y-axis	b) Parallel to x-axis	c) Perpendicular to Y - axis	**Both B & C**

23

_____ is an endless entity.

line	line segment	both A & B	None

24

Which line has intercept zero? .

Parallel to X-axis	Parallel to Y-axis	**Passes through origin**	Perpendicular to line segment

25

Frame buffer is

The device which controls the refresh rate	**The memory area in which the image, being displayed, is stored**	The device used for displaying the colors of an image	The memory area in which the is stored

26

For bresenham's algorithm the coordinates of a line are expressed by:

integer numbers	odd numbers	real numbers	even numbers

27

For sharp slopes there are _____

more rows than columns	more columns than rows	equal rows and columns	None

28

A _____ displayed by generating an inter –dash spacing that is equal to the length of solid section

Dotted Line	**Dashed Line**	Solid Line	Thick Line

29

In _____, upper and lower line boundaries are joined by circular arch.

Butt Cap **Round Cap** Projecting Square Cap ALL

30

Lines may have a jagged or stair-step appearance called_____

Anti-aliasing **Aliasing** intensity None

31

A pixel position in plane known as

Line **Point** Graphics None of these

32

When two lines are _____ to each other, their slopes are negative reciprocal of each other.

Parallel Passes through origin **Perpendicular** None

33.

_____is called Longest Chord of the Circle

Radius **Diameter** Long Chord None

34

The line segment passes through two foci points and terminates on the ellipse is called _____axis of Ellipse

Minor | Semi Minor | **Major** | Semi Major

35

In scan-line fill method, there are more than two intersection points on a single scan-line then draw a line between two _____.

successive intersection point start from even number of intersection | **successive intersection point start from odd number of intersection** | Both | None

36

A _____Polygon is a polygon in which if you take any two point of polygon then all the point on line segment fall within polygon itself .

Concave | **Convex** | Complete | Trapezoid

37

_____ method is used to store polygon in parts by drawing successive scan line.

Odd- Even | Scan Line | Complete | **Trapezoid**

38

In winding number method, if sum of direction number is non-zero then point in test is _____.

On the line | outside the polygon | **inside the polygon** | none

39

Boundary-fill algorithm is the simplest ___ filling algorithm.

Line volume **area** all of the above

40

In scan line algorithm _____ function used.

Find intersection point of the boundary of polygon and scan line Find intersection point of the boundary of polygon and point Both None

41

Which method is also known as alternative fill?

flood fill **scan-line fill** boundary fill None

42

To Fill polygon with pattern , The Pattern matrix Should be stored in _____

Display File **Frame Buffer** Both None

43

In scaling transformation, the original coordinates of an object are ___ by the given scale factor.			
added	**multiplied**	subtracted	divided

44

In translation, every point on an object translates____.			
Exactly the same distance	**different distances**	distances in increased order from top to bottom	distances in the decreased order from to bottom

45

In Homogeneous coordinate transformations matrix, all the transformation matrices should be ____			
added	**subtracted**	divided	multiplied

46

The two-dimensional translation equation in the matrix form is			
P'=P-T	**P'=P*T**	P'=P+T	P'=p

47

The basic geometric transformations are			
Translation	Rotation	Scaling	**All**

48

Which Factors are always Positive			
A) Translation Factor	B) Transformation Factor	**C) Scaling Factor**	Both A and B

49

when the object is altered with same scale factor for both horizontal and vertical directions; is called _____

Uniform Transformation	Differential Transformation	Rigid Body Transfomration	None of the Above

50

In Rigid Body Transformation, if the Euclidean distance between any two coordinates remains changed by the transformation.
TRUE **FALSE**

51

Reflection is also known as ____			
shadow in graphics	diffraction in graphics	**mirror**	evidence

52

Shearing Can be obtained by _____			
Scaling and Translation	Translation and Rotation	**Rotation and Scaling**	Scaling , Translation and Rotation

601-Computer Graphics(MCQs)

Question Bank

1. What is full form of CAD?
   A. Committed architecture Designing
   B. Computer Aided Designing

C. Computer Art Designing
D. None of these

2. Presentation Graphics is mainly used for?
   A. Financial Reports
   B. Statistical Reports
   C. Economical Reports
   D. All of these
3. A raster image is made up of
   A. Collection of objects
   B. Collection of lines
   C. Collection of pixels
   D. Collection of commands
4. Which of the following file format supports animation?
   A. GIF
   B. JPEG
   C. BMP
   D. None of these
5. What is full form of PHIGS?
   A. Programmer's Hierarchical Interactive Graphics System
   B. Programmer's Hidden Interactive Graphics System
   C. Page Hidden Interactive Graphics System
   D. Programmer's Hierarchical Input Glide System
6. Full form of CRT is
   A. Card Record Type
   B. Cathode Relay Tube
   C. Cathode Ray Tube
   D. Cathode Row Tube
7. What is persistence of Phosphor?
   A. How long it continues to emit light
   B. Its color range
   C. Number of RGB in phosphor
   D. Its display rate
8. Which of following is true about pixel?
   A. Smallest individually identifiable screen element
   B. Picture Element
   C. An image is collection of pixels.
   D. All of these
9. The quality of display screen is determined by?
   A. Lines
   B. Resolution
   C. Price
   D. None of these

10. The ratio of vertical points to horizontal points is called?
    A. Dot-pitch
    B. Resolution
    C. Aspect ratio
    D. Pixel
11. How many colors shadow mask method can identify?
    A. Ten
    B. Three
    C. Four
    D. Eight
12. Full form of DVST is?
    A. Digital View Straight Tube
    B. Direct View Storage Tube
    C. Detail View Storage Tube
    D. Digital View Storage Tube
13. What is full form of LCD?
    A. Liquid Crystal Display
    B. Line Circle Display
    C. Liquid Clear Display
    D. None of these
14. A vector graphics image is?
    A. Collection of pixels
    B. Collection of line drawing commands
    C. Collection of colors
    D. None of these
15. A vector graphics image is resolution independent
    A. TRUE
    B. FALSE
16. A raster graphics image is resolution dependent
    A. TRUE
    B. FALSE
17. A chord in a circle is?
    A. Any continuous part
    B. Same as radius
    C. Line segment which touches two endpoints
    D. Center point of the circle
18. The formula for circumference of a circle is
    A. πR^2
    B. $2\pi R$
    C. $X^2+y^2=1$
    D. $2/\pi$
19. The line segment that passes through the foci points and terminates on ellipse is called?

A. Minor Axis
B. Major Axis
C. Length of Ellipse
D. None of these

20. Full form of GKS is?
A. Graphics Keep System
B. Get Keep System
C. Graphics Kernel System
D. Graphics Sure System

21. What is slope?
A. Vertical Distance Between Points/ Horizontal Distance Between Points
B. Horizontal Distance Between Points/ Vertical Distance Between Points
C. Length of the line
D. None of these

22. Slope-Intercept equation of line is?
A. ax+by+c=0
B. y2-y1=0
C. x2-x1=0
D. y=mx+b

23. Two non-parallel lines have same slope?
A. TRUE
B. FALSE

24. Two parallel lines have same slope?
A. TRUE
B. FALSE

25. The relation between slopes of perpendicular lines is
A. m1=2*m2
B. m1=-1/m2
C. m2=m1
D. m1=y1/x1

26. What is frame buffer?
A. It stores commands of line drawing
B. It is an array of pixels
C. It stores line styles
D. None of these

27. What is full form of DDA?
A. Digital Differential Analyzer
B. Data Definition Analyzer
C. Digital Data Array
D. Digital Data Analyzer

28. Which of following line drawing algorithm is based on integer endpoints?
A. Vecgen

B. Bresenham

C. Both

D. None

29. Which of following is not a line cap?

A. Miter

B. Butt

C. Round

D. Projecting Square

30. Which of following is not a line joint?

A. Miter

B. Round

C. Bevel

D. Butt

31. Polygon is?

A. An open diagram with collection of lines

B. A figure with exactly two lines

C. A closed figure

D. None of these

32. A polygon is collection of

A. Vertices

B. Edges

C. Both

D. None

33. In a regular polygon

A. Number of angels are not equal to number of edges

B. Number of angels are equal to number of edges

C. Number of vertices are infinite

D. Number of edges are infinite

34. In a concave polygon

A. Line joining any two points of polygon does not fall entirely within polygon

B. Line joining any two points of polygon fall entirely within polygon

C. Number of angels are not equal to number of edges

D. None

35. A point is said to be inside in even-odd method if

A. Number of intersections on both sides are even

B. Number of intersections on both sides are not known

C. Number of intersections on both sides are odd

D. None of these

36. Even-Odd method does not work with overlapped polygons

A. TRUE

B. FALSE

37. A point is said to be inside winding number method if

A. Sum of direction values is 0
B. Sum of direction values is non-zero
C. Both
D. None

38. Flood fill method works well with overlapped polygons
A. TRUE
B. FALSE

39. In which method we move down the polygon line after line?
A. Flood Fill
B. Boundary Fill
C. Scan-line Fill
D. All of these

40. Which of the following method uses a stack?
A. Flood Fill
B. Scan-line Fill
C. Boundary Fill
D. Pattern Fill

41. In a square matrix if all entries in leading diagonal are 1 and other are 0, then it is called
A. Orthogonal Matrix
B. Unit Matrix
C. Square Matrix
D. Inverse Matrix

42. What is scaling?
A. It alters size of an object
B. It changes viewing angle of an object
C. Both of these
D. None of these

43. What is translation?
A. It changes the position of an object
B. It alters size of an object
C. It changes viewing angle of an object
D. All of these

44. Reflection produces
A. Slanted version of the object
B. Mirror image of the object
C. Double size of an object
D. All of these

45. What is Shearing?
A. It distorts the shape of an object
B. It produces an image with a new angle
C. It produces an image with a new position
D. It produces mirror image

46. Scaling matrix is

A. $\begin{bmatrix} S_x & 0 & 0 \\ 0 & S_y & 0 \\ 0 & 0 & 0 \end{bmatrix}$

B. $\begin{bmatrix} \mathbf{S_x} & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \mathbf{S_y} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

C. $\begin{bmatrix} S_x & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

D. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

47. Rotation about origin in clock wise direction matrix is

A. $\begin{bmatrix} \cos\theta & \sin\theta & 0 \\ \sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B. $\begin{bmatrix} \cos\theta & \sin\theta & 0 \\ -\sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix}$

C. $\begin{bmatrix} \mathbf{\cos\theta} & \mathbf{-\sin\theta} & \mathbf{0} \\ \mathbf{\sin\theta} & \mathbf{\cos\theta} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

D. $\begin{bmatrix} -\cos\theta & \sin\theta & 0 \\ \sin\theta & -\cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix}$

48. Reflection about origin matrix is

A. $\begin{bmatrix} \mathbf{-1} & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \mathbf{-1} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

B. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

C. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

D. $\begin{bmatrix} -1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

49. The generalized shearing matrix is

$\begin{bmatrix} 1 & sh_y & 1 \\ & & \end{bmatrix}$

A. $\begin{bmatrix} sh_x & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B. $\begin{bmatrix} \mathbf{1} & \mathbf{sh_y} & \mathbf{0} \\ \mathbf{sh_x} & \mathbf{1} & \mathbf{0} \\ \mathbf{0} & \mathbf{0} & \mathbf{1} \end{bmatrix}$

C. $\begin{bmatrix} 1 & sh_x & 0 \\ sh_y & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

D. $\begin{bmatrix} 1 & sh_x & 0 \\ sh_y & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix}$

50. The Translation matrix is

A. $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$

B. $\begin{bmatrix} -1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & -1 \end{bmatrix}$

C. $\begin{bmatrix} \mathbf{1} & \mathbf{0} & \mathbf{0} \\ \mathbf{0} & \mathbf{1} & \mathbf{0} \\ \mathbf{t_x} & \mathbf{t_y} & \mathbf{1} \end{bmatrix}$

D. $\begin{bmatrix} t_x & 0 & 0 \\ 0 & t_y & 0 \\ 0 & 0 & 1 \end{bmatrix}$

1 The graphics can be
1. Drawing 2. Photographs 3. Simulation 4. All of these

2 Raster graphics are composed of
1. Pixels 2. Paths 3. Palette 4. None of these

3 Color depth can be define by _____which can be displayed on a displayed on a display unit.
1. Bit per pixel 2. Bytes per pixel 3. Megabyte per pixel 4. None of these

4 GSK stands for
1. Graphics kernel system 2. Graphics kernel stand
3. Generic kernel system 4. None of these

5 A shadow mask CRT has _____phosphor color dots at a pixel position
1. 1 2. 2 3. 3 4. None of these

6 The process of coloring the area of a polygon is call
1. Polygon filling 2. Polygon flow 3. Aliasing 4. None of these

7 _____is the rigid body transformation that moves objects without deformation
1. Rotation 2. Scaling 3. Translation 4. None of these

8 The basic geometric transformation are
1. Translation 2. Rotation 3. Scaling 4. All of the mentioned

9 A scaling transformation change the_____of an object?
1. Location 2. Size 3. Shape 4. None of these

10 A transformation that slant the shape of object is called the _____.
1. Reflection 2. Shear transformation 3. Translation 4. None of these

11 Once the file is saved JPEG. Some data is lost
1. Temporarily 2. Permanently 3. Both 1and 2 4. None of these

12 Higher the number of pixels, _____the image quality.
1. Bad 2. Bette 3. Smaller 4. None of these

13 Vector graphics are composed of
1. Pixels 2. Paths 3. Palette 4. None of these

14 Types of computer graphics are
1. Vector and raster 2. Scalar and raster 3. Vector and scalar 4. None

15 In Bresenhan's algorithm error is initialized to ?
1. 0 2. 1 3. ½ 4. None of these

16 We control the location of a scale object by choosing
1. Pivot point 2. Fixed point 3. Differential scaling 4. Uniform scaling

17 To generate a rotation. We must specify
1. Rotation angle ø 2. Distance Dx & Dy 3. Rotation distance

18 A translation is applied to an object by
1. Repositioning is along with straight line path
2. Repositioning is along with circular path
3. Both 1 and 2
4. None of these

19 The process of changing the position of an object in a straight line path from one co-ordinate location to another is called_____
1. Rotation 2 translation 3. Motion 4. None of these

20 A transformation that produced a mirror image of an object to a axis is called____
1. Reflection 2. Translation 3. Rotation 4. None of these

COMPUTER GRAPHICS Multiple Choice Questions :-

1. The graphics can be

a. Drawing

b. Photograph, movies

c. Simulation

d. All of these

2. Computer graphics was first used by

a. William fetter in 1960

b. James fetter in 1969

c. James gosling in 1991

d. John Taylor in 1980

3. Types of computer graphics are

a. Vector and raster

b. Scalar and raster

c. Vector and scalar

d. None of these

4. Vector graphics is composed of

a. Pixels

b. Paths

c. Palette

d. None of these

5. Raster graphics are composed of

a. Pixels

b. Paths

c. Palette

d. None of these

6. Raster images are more commonly called

a. Pix map

b. bitmap

c. both a & b

d. none of these

7. Pixel can be arranged in a regular

a. One dimensional grid

b. Two dimensional grid

c. Three dimensional grid

d. None of these

8. The quantity of an image depend on

a. No. of pixel used by image

b. No. of line used by image

c. No. of resolution used by image

d. None

9. Higher the number of pixels,_____ the image quality

a. Bad

b. Better

c. Smaller

d. None of above

10. Several graphics image file formats that are used by most of graphics system are

a. GIF

b. JPEG

c. TIFF

d. All of these

11. EPS image file format is used for

a. Vector graphics

b. Bitmap

c. Both a & b

d. None of these

12. TIFF (tagged image file format)are used for

a. Vector graphics

b. Bitmap

c. Both a & b

d. None of these

13. EPS means

a. Entire post script

b. Entire post scale

c. Encapsulated post script

d. None of these

14. RGB model are used for

a. Computer display

b. Printing

c. Painting

d. None of these

15. CMYK model are used for

a. Computer display

b. Printing

c. Painting

d. None of these

16. Color depth can be defined by _____ which can be displayed on a display unit

a. Bits per pixel

b. Bytes per pixel

c. Megabyte per pixel

d. None of these

17. CRT means

a. Common ray tube

b. Cathode ray tube

c. Common ray tube

d. None

18. Refresh CRT consist of

a. Glass wrapper

b. The phosphor viewing surface

c. The electron gun assembly

d. All of above

19. The electron beam in a color picture tube is refreshed_____ times in a second to make video realistic

a. 15 times

b. 25 times

c. 35 times

d. 45 times

20. DVST means

a. Direct view storage tube

b. Domain view storage tube

c. Direct view store tube

d. None

21. DVST is rarely used today as part of

a. Input device

b. Output device

c. Display systems

d. None

22. In DVST , is there refresh buffer

a. Yes

b. No

c. Both

d. None

23. The electron beam in DVST is designed to draw directly to

a. Phosphor

b. Storage Grid

c. Glass

d. None

24. The second grid in DVST is called

a. Phosphor

b. Storage mesh

c. Collector

d. None

25. Interactive graphics is useful in

a. Training pilots

b. Computer aided design

c. Process control

d. All of these

26. Computer graphics is used in many DTP software as

a. Photoshop

b. Paint brush

c. Both a & b

d. None of these

27. Any CRT based display must be refreshing at least_____ times a second

a. 20

b. 30

c. 40

d. 10

28. The standardization is needed

a. To make application programs more portable

b. To increase their utility

c. To allow them to use in different application environment

d. All of these

29. GKS stands for

a. Graphics kernel system

b. Graphics kernel stands

c. Generic kernel system

d. None of these

30. Random scan systems are designed for

a. Line drawing application

b. Pixel drawing application

c. Color drawing application

d. None of these

31. Two basic technique for producing color display with a CRT are

a. Shadow mask and random scan

b. Beam penetration method and shadow mask method

c. Random scan and raster scan

d. None of above

32. In beam penetration method of color CRT, two layer of phosphor coated are

a. Red and blue

b. Red and green

c. Blue and green

d. None of these

33. In beam penetration method of color CRT, which layer is red and which is green

a. Outer is red and inner is green

b. Inner is red and outer is green

c. Inner is red and inner is green

d. None

34. A shadow mask CRT has _____ phosphor color dots at each pixel position

a. 1

b. 2

c. 3

d. None of these

35. Which technique of color CRT is used for production of realistic image

a. Shadow mask method

b. Beam penetration method

c. Both a & b

d. None of these

36. Beam penetration method is used in

a. Random scan system

b. Raster scan system

c. Both a & b

d. None of these

37. Shadow mask method is used in

a. Random scan system

b. Raster scan system

c. Both a & b

d. None of these

38. The method which uses array of dots for generating a character is called

a. Stoke method

b. Bitmap method

c. Star bust method

d. None of these

39. The division of the computer screen into rows and columns that define the no. of pixels to display a picture is called

a. Persistence

b. Resolution

c. Encapsulated post script

d. None

40. LCD means

a. Liquid crystal displays

b. Liquid crystal data

c. Liquid chrome data

d. None

41. A pixel may be defined as

a. Smallest size object

b. Larger size object
c. Medium size object
d. None of these

42. A position in plane known as
a. Line
b. Point
c. Graphics
d. None of these

43. A line can be represented by
a. One point
b. Two points
c. Three points
d. Four points

44. The process of coloring the area of a polygon is called
a. Polygon filling
b. Polygon flow
c. Aliasing
d. None of these

45. How many types of polygon filling
a. Two
b. One
c. Three
d. Four

46. 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

47. If the pixel is already filled with desired color then leaves it otherwise fills it. this is called
a. Flood fill algorithm
b. Boundary fill algorithm
c. Scan line polygon filling algorithm
d. None of these

48. The process of reducing aliasing is called
a. Resolution
b. Anti aliasing
c. Sampling
d. None of these

49. The problem of aliasing are
a. Staircase
b. Unequal brightness
c. Picket fence problem
d. All of these

50. The technique to minimizing aliasing are
a.Increased no of resolution
b. Modify pixel intensities
c. Super sampling
d. All of these