

### Aptitude Test Question

Q.1) Which software is not used for Image processing?

- a) MatLab
- b) Visual Basic
- c) Java
- d) Fortran

Ans: d

Q.2) Which software is not used for Computer graphics?

- a) C
- b) Java
- c) Fortran
- d) C++

Ans: c

Q.3) Which device is not used to display the result of program for Computer Graphics?

- a) Video monitor
- b) Printer
- c) Both a & b
- d) Keyboard

Ans: d

Q.4) what are the application of Computer Graphic

- a) CAD
- b) Animation
- c) Medical visualization
- d) None of above

Ans: a, b & c

Q.5) 3d viewing device are required

- a) To reflect a CRT image from a vibrating, flexible mirror
- b) Allows walking around an object or scene and viewing it from different sides
- c) to the display of 3d scene
- d) None of above

Ans: a, b & c

Q.6) Which is not the input device for CG

- a) Trackballs and space balls
- b) Joysticks
- c) Keyboard
- d) Plotter

Ans: d

Q.7) Which algorithm is used to draw a line

- a) Mid point algorithm
- b) Cyrus Beck algorithm
- c) Sutherland Cohen algorithm
- d) DDA

Ans: d

Q.8) Which algorithm is not used to draw a circle

- a) midpoint
- b) Polar co-ordinate
- c) DDA
- d) Bresenham's

Ans: c

Q.9) How many axis are required to display 3D object?

- a) 1
- b) 3
- c) 2
- d) 4

Ans: b

Q.10) How many axis are required to display 2D object

- a) 2
- b) 3
- c) 1
- d) 0

Ans: a

Q.11) Which graphics system does not use the concept of workstation to specify devices or software that are to be used for input or output in a particular application

- a) PHIGS
- b) GKS
- c) GL
- d) CGM

Ans: c & d

Q.12) Which line drawing algorithms are identical

- a) DDA & Bresenham's
- b) Bresenham's & midpoint
- c) DDA & midpoint
- d) None of above

Ans: b

Q.13) Which is not a basic tool to construct a picture

- a) straight
- b) curves
- c) Filled area
- d) None of above

Ans: d

Q.14) Scanline fill algorithm is an example of filling object

- a) Interior using odd even rule to locate the interior regions
- b) By taking midpoint of object
- c) Using 4- connected region
- d) Using 8-connected region

Ans: a

Q.15) Line drawing algorithm are implemented

- a) By partitioning the line segment
- b) By even odd rule
- c) Using only lower left or right corner

d) None of above

Ans: a

Q.16) The basic geometric transformation are

a) Translation & scaling

b) Rotation

c) Both a& b

d) None of above

Ans: c

Q.17) Scaling changes the dimensions of an object relative to

a) Specific fixed point

b) Arbitrary point

c) Both a & b

d) Lower left corner point

Ans: a

Q.18) Rotation moves an object from one position to another position in a

a) Circular path

b) X-axis

c) Y-axis

d) None of above

Ans: a

Q.19) We can express two-dimensional geometric transformation as

a) 3 by 3 matrix

b) 4 by 4 matrix

c) 2 by 2 matrix

d) n by n matrix

Ans: a

Q.20) For two dimensional transformation, coordinate position are represented with three element homogeneous coordinate with the third coordinate assigned the value as

a) 0

b) 1

c) 2

d)3

Ans: b

Q.21) Composite transformation are formed as

- a) Addition of any combination of translation, scaling & rotation matrix
- b) Multiplication of any combination of translation, rotation & scaling matrix
- c) Both a & b
- d) Multiplication of any combination of scaling

Ans: b

Q.22) Transformation does not include

- a) Reflection
- b) Shear
- c) Rotation
- d) None of above

Ans: d

Q.23) Reflection are transformation that rotate an object

- a)90 degree about a reflection axis
- b) 180 degree about a reflection axis
- c) 270degree about a reflection axis
- d) 0 degree about a reflection axis

Ans: b

Q.24) Shear transformation

- a) Distort the shape of an object
- b) Does not distort the shape of an object
- c) Moves the object toward x-axis
- d) Moves the object towards y axis

Ans: a

Q.25) Transformation function in graphics package are usually provides only

- a) Translation, rotation & scaling
- b) Translation, reflection & shearing

c) Rotation, scaling & shearing

d) Scaling reflection & shearing

Ans: a

Q.26) Geometric transformation do not involve

a) Scaling or shear

b) Rotation

c) Translation

d) None of above

Ans: a

Q.27) When reflection axis is perpendicular to xy plane

a) The reflection is obtained as a rotation in xy plane

b) Reflection does not occur

c) Object changes it size

d) Shears the objects

Ans: a

Q.28) Window and viewport are

a)rectangles in a standard position

b) Triangles in a standard position

c) Circle

d) Polygon in standard position

Q.29) Which is the first line clipping algorithm?

a) Liang Barkly

B)NLN

c) Cohen Sutherland

d) Cyrus-Beck

Ans: c

Q.30) Which line clipping algorithm uses more region testing in xy plane?

a)Liang and Barkly

b)NLN

c) Cohen Sutherland

c)Cyrus-Beck

Ans: a

Q.31) Which application perform exterior clipping

a)animation

b) Education

c) Creating picture insect

d) Magazine multiple screen window

Ans: c & d

Q.31) Which of the following is not polygon clipping algorithm?

a) Sutherland Hodgeman

b) Liang Barkly

c) Weiler Atheran

d)Cyrus –Beck

Ans: d

Q.32) Clipping region is commonly refereed as

a) Clipping window

b) Viewport

c) Clipping area

d) None of above

Ans: a

Q.33) Normalized coordinate are specified in the range of

a) 0 & 1

b) 0 to 1

c) 0 to 255

d) 0 to 15

Ans: a

Q.34) Three dimension transformation operations are represented by

a) 3 by 3 matrix

b)4 by 4 matrix

c)2 by 2 matrix

d) None of above

Ans: b

Q.35) Three dimensional rotation can be represented as a combination of basic rotation around

a) x,y & z axes

b) x& y axes

c) x& z axes

d) y & z axes

Q.36) Transformation between different coordinate system is common element of

a) Modeling & viewing routine

b) Animating routine

c) clipping

d) Drawing

Ans: a

Q.37) Orthogonal projection are most often used to produce

a) Front, side & top view of an object

b) Front, side, back view of an object

c) Side, top, back view of an object

d)front, side, top, back view of an object.

Ans: a

Q.38) Front, side & rear orthographic projection are called

a) Isometric projection

b) Axonometric orthogonal projection

c) Oblique projection

d)elevation

Ans

Q.39) Top orthographic projection are called

a) Elevation

b) Plan view

c) Oblique projection

d)isometric projection



Ans: b

Q.40) Three dimensional viewing operations involves more

- a) spatial parameter
- b) Geometric parameter
- c) Coordinate
- d) None of above

Ans: a

Q.41) Which camera analogy is used to describe three dimensional viewing parameter?

- a) Camera position & orientation
- b) Camera position & height
- c) Height & orientation
- d) Flash & orientation

Ans: a

Q.42) Perspective projection or parallel projection can be used to transfer object description to

- a) View plane
- b) Top view
- c) Side view
- d) Front view

Ans: a

Q.43) Parallel projection is

- a) Orthographic
- b) Oblique
- c) A and b
- d) A or b

Ans: d

Q.44) An isometric view of an object is obtained with an axonometric projection that foreshortens each principal axis by

- a) Same amount
- b) Different amount
- c) Fixed amount

d) Can't say

Ans: a

Q.45) which projection is cavalier projection and the cabinet projection

a) Orthographic projection

b) Oblique projection

c) Isometric projection

d) Both a & b

Ans: b

Q.46) Object in three dimensional scene are clipped against

a) View plane

b) Coordinate

c) View volume

d) Both a & b

Ans: c

Q.47) Front and back view are used to create

a) View plane

b) Coordinate

c) View volume

d) Both a & b

Ans: c

Q.49) Fill area primitives in many graphics refers to

a) Filled polygon

b) Shadow

c) shading

d) Transparency

Ans : a

Q.50) A common method providing polygon fill on raster system is

a) Scan line fill algorithm

b) Boundary fill algorithm

c) Flood fill algorithm

d) Area sub division

Ans: a

Q.51) a fast & simple technique for identifying visible surface is

a) A buffer

b) Z buffer

c) Scanline algorithm

d) Area sub division algorithm

Ans: b

Q.51) Z buffer method requires

a) One buffer

b) Two buffer

c) Three buffer

d) Four buffer

Ans: b

Q.52) Depth buffer method is also known as

a) Z buffer

b) A buffer

c) Scanline algorithm

d) Area sub division algorithm

Ans: a

Q.53) Which algorithm eliminate all hidden surface

a) Back face detection

b) BSP tree method

c) Scanline

d) None of above

Ans: a

Q.54) Depth sorting algorithm is also known as

a) BSP tree

b) Scanline

c) Z buffer

d) painters algorithm

Ans: d

Q.55) Visibility method is also used in displaying

- a) Shadow
- b) Front view
- c) Three dimensional line drawing
- d) Two dimensional line drawing

Ans: c

Q.56) Which algorithm provides additional information for displaying

Initialized & transparent surface

- a) Z buffer
- b) A buffer
- c) BSP tree
- d) Area sub division method

Ans: b

Q.57) Which algorithm is not used for hidden surface removal

- a) A buffer
- b) BSP tree
- c) Sutherland Hodgeman
- d) Z buffer

Ans: c

Q.58) Which algorithm is used if the surface in a scene are spread out in the z direction so that very little depth to overlap?

- a) Depth sorting or BSP Tree method
- b) Scanline algorithm
- c) Area sub division method
- d) All of above

Ans: a

Q.59) which algorithm is used if the surface in a scene is fairly well separated horizontally

- a) depth sorting algorithm

- b) BSP tree
- c) Scanline & area sub division algorithm
- d) all of above

Ans: c

Q.60) Which algorithm is useful if a scene has few surface

- a) Depth sorting or BSP Tree method
- b) Scanline algorithm
- c) Area sub division method
- d) All of above

Ans: a

Q.61) Which algorithm gives low performance with simple scene and relatively high performance with complex scene

- a) Depth buffer method
- b) Scanline algorithm
- c) Area sub division method
- d) BSP Tree method

Ans: a

Q.62) Which algorithm is useful when multiple view are to be generated using different view reference point

- a) BSP Tree method
- b) Depth buffer method
- c) Scanline algorithm
- d) area sub division method

Ans: a

Q.63) Which method is useful when a scene contain curved surface representation to identify visible parts of the scene

- a) BSP Tree method
- b) Octree method
- c) Scanline algorithm
- d) Area sub division method

Ans: b

Q.64) An illumination model is also known as

- a) Lighting model
- b) Shading model
- c) Shadow
- d) Surface rendering algorithm

Ans: a & b

Q.65) Which algorithm uses the intensity calculation from an illumination model to determine the light intensity for all projected pixel position from the various surface in the scene

- a) lighting model
- b) Surface rendering model
- c) Shadow
- d) transparency

Ans: b

Q.66) Which model is used to calculate light intensity at a single surface pint

- a) Lighting model
- b) Surface rendering model
- c) Shadow
- d) transparency

Ans: a

Q.67) Which model means a procedure for applying a lighting model to obtain pixel intensity for all the projected surface position in a scene?

- a) Lighting model
- b) surface rendering model
- c) Shadow
- d) transparency

Ans: b

Q.68) Which model in computer graphics are often loosely derived from the physical law that describe light intensity?

- a) Lighting model
- b) Surface rendering model
- c) Shadow

d)transparency

Ans: a

Q.69)Which of the following is not an illumination model

a)Constant intensity shading

b)Gouraud shading

c) Phong shading

d)Warn model

Ans: d

Q.70) Which model is accurate for polyhedrons or for curved surface polygon meshes when the viewing and light source positions are far from the object in a scene

a)Constant intensity shading

b)Gouraud shading

c)Phong shading

d)Warn model

Ans: a

Q.71) Which shading approximates light reflection from curved surfaces by calculating intensity values at polygon vertices and interpolating these values across the polygon facets

a)Constant intensity shading

b)Gouraud shading

c) Phong shading

d)Warn model

Ans: b

Q.72)Which shading is accurate & slow when interpolates the a)Constant intensity shading

b)Gouraud shading

c)Phong shading

d)Warn model

Ans: c

Q.73) Lighting calculation is not based on the

a) Optical property of surface

b)the background lighting condition

c) Light surface specification

d) None of above

Ans: d

Q.74) Optical parameter is not used to set surface property such as

a)glossy

b) Matte

c) Opaque & transparent

d)the background lighting condition

Ans: d

Q.75) Accurate display of transparency and ant aliasing can be obtained with

a)A-buffer

a)Z buffer

c) Both a& b

d) None of above

Ans: a

Q.76) Shadow pattern generated by a hidden surface method are valid any selected viewing position as long as the light source position are

a) Changed

b) Not changed

c) Fixed

d) None of above

Ans: b

Q.77) Transparent surface in general produce

a) Reflected light

b) Transmitted

c) Both a& b

d) None of above

Ans: c

Q.78) Scanline algorithm is normally used to fill

a)polygons

b) Circle



c) Ellipse & curve

d) All of above

Ans: d

Q.79) In boundary fill algorithm area filled by neighboring apt which is

a) 4- connected area

b) 8 -connected area

c) 2-connected area

d) 16- connected area

Ans: a& b

Q.80) Change in orientation, size & shape are accomplished with \_\_\_\_\_ that alter the coordinate description of object

a) Geometric transformation

b) Composite transformation

c) Spatial transformation

d) Affine transformation

Ans: a

Q.81) uniform scaling of a circle is done by

a) Simply adjusting circumference

b) Simply adjusting radius

c) Both a& b

d) None of above

Ans: b

Q.82) Two dimensional viewing transformation is referred as

a) window to viewport transformation

b) Windowing transformation

c) Both a& b

d) None of above

Ans: c

Q.83) Any procedure that identifies a picture that are either inside or outside of a specified region of space is referred as

a) Clipping algorithm

b) Circle drawing algorithm

d) Point

d) Line drawing algorithm

Ans: a

Q.84) The region against which an object is to clipped is called a

a) Clip window

b) World coordinates

c) Device coordinates

d) viewpoint

Ans: a

Q.85) Point clipping can be applied to scene involving\_\_\_\_\_ that are modeled with particles distributed in some region of the scene

a) explosion

b) Sea foam

c) Both a & b

d) a or b

Ans : d

Q.86) Which polygon clipping algorithm performs clipping by finding the intersection region of two polygons

a) Sutherland Hodgeman algorithm

b) Liang Barkly method

c) NLN method

d) Weiler method

Ans : d

Q.87) Bezier splines are widely available in

a) CAD system

b) GL

C) assorted drawing & painting

d) All of above

Ans: d

Q.88) Visible surface detection is also called as

- A) Hidden surface elimination
- b) Shadow model
- c) Shading
- d)transparency

Ans: a

Q.89) An improvement of depth buffer algorithm is

- A) A-buffer
- b)BSP tree method
- c) Area sub division method
- c) Octree method

Ans: a

Q.90) A flat & simple method for rendering an object with polygon surface

- a)flat shading
- b)Gouraud shading
- c)Phong shading
- d) Fast Fong shading

Ans: a

Q.91) Advantages of Parametric representation of Curves & Surface are

- a) Solves problem of choice of independent variable
- b) Easy computation of derivatives
- c) Provides mechanism for "tracing" a curve or surface
- d) None of above.

Ans: a, b, c

Q.92) Disadvantages of Constant intensity shading are

- a) Quickly displayed with same intensity value
- b) If a polyhedron is not an approximation of an object with a curved surface, flat shading provides an accurate rendering
- c) Not accurate rendering for an object
- d) All of above

Ans: c

Q.93) Which point are needed to consider for shading?

- a) Light sources & Material properties
- b) Location of viewer & Surface orientation
- c) Both a & b
- d) None of above

Q.94) Properties of Bezier curves are

- a) Not all of the control points are on the line
- b) Points have "influence" over the course of the line
- c) The first and last control points are interpolated
  
- d) All of above

Ans: d

Q.95) Disadvantages of Bezier curves are

- a) The degree of the Bezier curve depends on the number of control points.
- b) The Bezier curve lacks local control
- c) Points have "influence" over the course of the line
- d) The first and last control points are interpolated

Ans: a& b

Q.96) Three dimensional coordinate are

- a) Left handed or right handed
- b) Clockwise direction
- c) Anticlockwise direction
- d) All of above

Ans: a

Q.97) Characteristic of perspective projection is

- a) Smaller as their distance from the observer increases.
- b) Foreshortened
- c) Points have "influence" over the course of the line
- d)all of above

Ans: a & b

Q.98) Three dimensional display method can

- a) Highlight the visible lines or display them in different color
- b) Display nonvisible lines as dashed lines
- c) Remove the nonvisible lines
- d) All of above

Ans: d

Q.99) How composition of 3D transform works?

- a) Breaking a difficult problem into simpler sub-problems:
- b) Apply geometric transform
- c) Shears the object
- d) Reflect the object

Ans: a

Q.100) Cyrus-Beck can does

- a) Computation of t-intersections is cheap
- b) Best used when trivial acceptance and rejection is possible for most lines
- c) Repeated clipping is expensive
- d) Fastest, but doesn't do 3D

Ans: a