Q174). In which of the given areas, multimedia has no role to play

(a) Education

(b) Video conferencing

(c) Travel and tours

(d) None of the above

Q175). Which of the following factors influence the quality of the multimedia based communication

(a) End system heterogeneity

(b) Synchronization of multimedia and hypermedia documents

(c) Both (a) and (b)

(d) None of the above

Q176). Audio signals are digitized with the help of

(a) ADC

(b) DAC

(c) AVI

(d) WAV

Q177). Which of the following is not output hardware?

(a) Amplifier

(b) Speaker

(c) Monitor

(d) Digital camera

Q178). Which of the following devices can be used to splash your work onto big screen surfaces?

(a) CRT projectors

(b) LCD projectors

(c) Light value projectors

(d) All of the above

Q179). Hypermedia

(a) Is another media like graphics?

(b) Provides links between two media

(c) Is a facility to permit two media to be played together?

(d) Is another name for multimedia?

Q180). In hypermedia, which of the following links are not acceptable?

(a) Images

(b) Audio clips

(c) Animated videos

(d) None of the above

Q181). Which of the following stores digital audio waveforms

(a) MIDI files

(b) Wave files

(c) Both (a) and (b)

(d) None of the above

Q182). Which of the following files is device dependent?

(a) MIDI files

(b) WAVE files

(c) Both (a) and (b)

(d) None of the above

Q183). Which of the following statements about OpenGL is incorrect

(a) It is not a programming language

(b) It is an API

(c) It is a header file

(d) None of the above

Q184). Identify the incorrect data type

(a) Glint

(b) Openglfloat

(c) Openglchar

(d) All of the above

Q185). Which of the following is not true?

(a) OpenGL commands use prefix “gl”

(b) All constants are in upper case

(c) All data types start with GL

(d) All are correct

Q186). To construct the rectangle ABCD it is enough if

(a) If the length and breadth are known

(b) The vertices A and B are given

(c) The vertex A and the length of the diagonal are given

(d) The vertices A and C are given

Q187). A raster color display processor supports a resolution of 1024\*800 with up to 16 million colors simultaneously displayable. What will be the approximate size (in bytes) of the frame buffer used in the display processor?

(a) 1.2 \* 10 ^ 6

(b) 2.4 \* 10 ^ 6

(c) 16 \* 10 ^ 6

(d) 10 ^ 5

Q188). Choose the correct statement from the following about the basic ray tracing technique used in image synthesis

(a) In this technique, rays are cast from the eye point through every pixel on the screen

(b) In this technique, viewing transformations are not applied to scene prior to rendering

(c) This technique removes hidden surfaces

(d) In this technique, rays are cast from the light source to the objects in the scene

Q189). Which of the following statements are true?

(a) Request, sample and event are the 3 basic modes of input

(b) Keyboard is a device ideally suited for use in sample mode

(c) A mouse is typically a device for inputting an absolute position on the screen

(d) Special graphics hardware support is essential for providing a menu driven interface to an application

Q190). Which of the following devices has a relative origin?

(a) Joystick

(b) Track ball

(c) Mouse

(d) None of the above

Q191). 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 (1, 0, 1) is

(a) (0, 0, 0)

(b) (1, 1, 0)

(c) (0, 1, 1)

(d) (0, 1, 0)

Q192). A surface appearing black

(a) Reflects all the incident colors

(b) Reflects all the incident colors except black

(c) Reflects only black and absorbs the rest

(d) Reflects none

Q193). Hue of a color is related to its

(a) Luminance

(b) Saturation

(c) Incandescence

(d) Wavelength

Q194) Pixel is

* 1. The smallest addressable point on the screen
  2. An input device
  3. A memory block
  4. A data structure

Q195) Resolution is defined as ………………

1. The number of pixels in the horizontal direction × The number pixels in the vertical direction
2. The number of pixels in the vertical direction × The number pixels in the horizontal direction
3. The number of pixels in the vertical direction + The number pixels in the horizontal direction
4. The number of pixels in the vertical direction - The number pixels in the horizontal direction

Q196) Aspect ratio is

1. The ratio of image’s width to its height
2. The ratio of window to viewport height
3. The ratio of image’s intensity levels
4. The ratio of image’s height to its width

Q197) Refresh rate is …………………..

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

Q198) The three dimensional matrix transformation for translation with a units along x-axis and b units along y-axis and c units along z-axis is

a) 1 0 0 0

0 1 0 0

0 0 1 0

-a b 0 1

b) 1 0 0 0

0 1 0 0

0 0 1 0

a b c 1

c) 1 0 0 0

0 1 0 0

0 0 1 0

a -b c 1

d) 1 0 0 0

0 1 0 0

0 0 1 0

b a 0 1

Q199) The distance between the pixels on a screen is called

1. OCR
2. LCD
3. Dot pitch
4. Refresh rate

Q200) A pictorial screen symbol that represents a computer activity

is called a(n)

1. Pointer
2. Icon
3. Touch screen
4. MICR

Q201) Using computers to design and manufacture products is called

1. Inscribing
2. CAD/CAM
3. Detailing
4. Imaging

Q202) The rate of screen refreshment is called

1. Pixel speed
2. Bit-map speed
3. Raster rate
4. Scan rate

Q203) “Mark sensing” is another term for

1. MICR
2. POS
3. OMR
4. XGA

Q204) A(n) \_\_\_\_\_\_\_\_ is a device that is used for optical character

recognition

1. Wand reader
2. Cursor
3. Stylus
4. MICR reader

Q205) A(n) \_\_\_\_\_\_\_\_\_\_\_ monitor shows single-colour characters on a

contrasting background

1. Monochrome
2. Blank
3. Addressable
4. Liquid crystal display

Q206) Document imaging uses what device to input data?

1. Scanner
2. Bar-code reader
3. Icon
4. Tablet

Q207) A(n) \_\_\_\_\_\_\_\_\_\_\_\_ is a screen that is lighter and slimmer than

a CRT.

1. OCR
2. Graphics card
3. Flat-panel
4. Terminal

Q208) Computer animation is a form of

1. LCD
2. CAD/CAM
3. Video graphics
4. Color printer output

Q209) The resolution of an SVGA screen is

a) 1024 x 768

b) 512 x 512

c) 640 x 480

d) 800 x 800

Q210) GUI is

1. Hardware
2. Language interpreter
3. Software interface
4. An operating system.

Q211) The three dimensional matrix transformation for rotation with an angle Ө with respect to x-axis in the positive direction is

a) 1 0 0 0

0 cosө sinө 0

0 -sinө cosө 0

0 0 0 1

b) 1 0 0 0

cosө -sinө 0 0

sinө cosө 1 0

0 0 0 1

c) 1 0 0 0

0 cosө sinө 0

0 -cosө sinө 0

0 0 0 1

d) 1 0 0 0

cosө -sinө 0 0

-sinө cosө 1 0

0 0 0 1

Q212) The three dimensional matrix transformation for rotation with an angle Ө with respect to z-axis in the positive direction is

a) cosө sinө 0 0

-sinө cosө 0 0

0 0 1 0

0 0 0 1

b) cosө sinө 0 0

cosө -sinө 0 0

0 0 1 0

0 0 0 1

c) cosө sinө 0 0

sinө cosө 0 0

0 0 1 0

0 0 0 1

d) 1 cosө sinө 0

0 -sinө cosө 0

0 0 1 0

0 0 0 1

Q213) The three dimensional matrix transformation for rotation with an angle Ө with respect to y-axis in the positive direction is

a)cosө 0 -sinө 0

sinө 0 cosө 0

0 0 1 0

0 0 0 1

b)cosө 0 sinө 0

sinө 0 -cosө 0

0 0 1 0

0 0 0 1

c) cosө sinө 0 0

sinө cosө 0 0

0 0 1 0

0 0 0 1

d)1 cosө sinө 0

0 -sinө cosө 0

0 0 1 0

0 0 0 1

Q214) The three dimensional matrix transformation for scaling with a units along x-axes and b units along y-axes and c units along z-axis is

a) -a 0 0 0

0 -b 0 0

0 0 c 0

0 0 0 1

b) -a 0 0 0

0 -b 0 0

0 0 0 0

a b c 1

c) -a 0 0 0

0 -b 0 0

0 0 -c 0

0 0 0 1

d) a 0 0 0

0 b 0 0

0 0 c 0

0 0 0 1

Q215) The three dimensional matrix transformation for reflection of a point with respect to xy plane is

a)-1 0 0 0

0 1 0 0

0 0 1 0

0 0 0 1

b) 1 0 0 0

0 -1 0 0

0 0 1 0

0 0 0 1

c) 1 0 0 0

-1 0 0 0

0 0 1 0

0 0 0 1

d)1 0 0 0

0 1 0 0

0 0 -1 0

0 0 0 1

Q216) The three dimensional matrix transformation for reflection of a point with respect to yz plane is

a)-1 0 0 0

0 1 0 0

0 0 1 0

0 0 0 1

b)-1 0 0 0

0 1 0 0

0 0 1 0

0 0 0 1

c)1 0 0 0

-1 0 0 0

0 0 1 0

0 0 0 1

d)1 0 0 0

0 1 0 0

0 0 -1 0

0 0 0 1

Q217) The three dimensional matrix transformation for reflection of a point with respect to zx plane is

a)-1 0 0 0

0 1 0 0

0 0 1 0

0 0 0 1

b)-1 0 0 0

0 1 0 0

0 0 1 0

0 0 0 1

c) 1 0 0 0

-1 0 0 0

0 0 1 0

0 0 0 1

d)1 0 0 0

0 1 0 0

0 0 -1 0

0 0 0 1

Q218) The Z-buffer algorithm

* 1. Finds the largest depth value z
  2. Finds the smallest depth value z
  3. Finds the average of the frame buffer
  4. Calculates the intensity at(x,y)

Q219) Painter’s algorithm is also called

a) Scan line Algorithm

b) Subdivision Algorithm

c) Depth sort Algorithm

d) Rendering Algorithm

Q220) Gourard shading is

a) An interpolative shading method

b) A subdivision shading method

c) An averaging shading method

d) Not a shading method

Q221) World coordinate system is

* 1. The coordinate system in which the image is defined
  2. The coordinate system in which the object is defined
  3. The coordinate system in which the surfaces is defined
  4. The coordinate system in which the transformation are performed

Q222) Frame buffer is

* + 1. The memory area in which the image, being displayed, is stored
    2. The device which controls the refresh rate
    3. The device used for displaying the colors of an image
    4. The memory area in which the graphics package is stored

Q223) Aliasing means

1. Rendering effect
2. Shading effect

c) Staircase effect

d) Cueing effect

Q224) A 512 × 512 raster requires ……………….bits in a bit plane.

* 1. 212
  2. 218
  3. 210
  4. 28

Q225) The look up table technique………………… the number of intensity levels.

1. Decreases
2. Increases
3. Removes
4. Gives no effect on

Q226) A simple 3-bit plane frame buffer can have…………………. Number of color combinations

1. 8
2. 16
3. 24
4. 3

Q227) RGB stands for…………..

1. Resolution-Global-Bright
2. Resolution of green and blue
3. Red-Green-Blue
4. None of these

Q228) In a 3-bit plane buffer 01 represents………………color

1. Red
2. Cyan
3. Black
4. Green

Q229) In a 3-bit plane buffer the color Magenta is represented by………………

1. 101
2. 100
3. 111
4. 011

Q230) If Blue is represented as 001 the yellow is represented as ……………..

1. 001
2. 010
3. 101
4. 110

Q231) A 24-bit plane color frame buffer with three 10-bit wide color look up tables can have………… number of colors

1. 224
2. 28
3. 248
4. 230

Q232) DAC means

1. Direct access coding
2. Digitally activated compression
3. Direct area clipping
4. Digital to Analog Converter

Q233) …………………..acts as anode in CRT

1. The phosphorous coating
2. The glass panel
3. The deflectors
4. None of these

Q234) Slope of the line joining the points(1,2) and (3,4)is……………

1. 0
2. 1
3. 2
4. 3

Q235) The slope of the line joining the points(0,0) and (5,5)is……………

1. 0
2. 1
3. 2
4. 3

Q236) The slope of the line joining the points(3,0) and (5,0)is……………

1. 0
2. 1
3. 2
4. 3

Q237) Bresenham’s circle generating algorithm will take reflections of ……………….

1. Two octets
2. One octet
3. Three octets
4. None

Q238) In Bresenham’s circle generating algoritms, if (x,y) is the current pixel position then the x-value of the next pixel position is…………………………..

a) x

b) x-1

c) x+1

d) x+2

Q239) In Bresenham’s circle generating algoritms, if (x,y) is the current pixel position then the y-value of the next pixel position is…………………………..

a) y or y+1

b) y alone

c) y+1 or y-1

d) y or y-1

Q240) Run length coding is used for…………………

1. Image smoothening
2. Image compression
3. Image coloring
4. Image dithering

Q241) The property that adjacent pixels are likely to have the same characterstics is called………………….

1. Spatial coherence
2. Area coherence
3. Scan line coherence
4. Pixel coherence

Q242) The property that adjacent pixels on a scan line are likely to have the same characterstics is called………………….

1. Spatial coherence
2. Area coherence
3. Scan line coherence
4. Pixel coherence

Q243) The technique of using a minimum number of intensity levels to obtain increased visual resolution is called……………………

1. Dithering
2. Halftoning
3. Depth cueing
4. Rendering

Q244) If XL, XR, YB, YT represent the four parameters of x-left, x-right, y-bottom and y-top of the clipping window and (x,y) is a point inside the window then……………….

1. XL≤ x ≤ XR and YB ≤ y ≤ YT
2. XL≤ x ≤ XR and YB ≥ y ≥ YT
3. XL ≥ x ≥ XR and YB ≤ y ≤ YT
4. XL ≥ x ≥ XR and YB ≥ y ≥ YT

Q245) If XL, XR, YB, YT represent the four parameters of x-left, x-right, y-bottom and y-top of the clipping window and (x,y) is a point such that y > YT then (x,y)lies………………….

1. Inside the window
2. Outside the window
3. On the boundary of the window
4. None of these

Q246) The Cohen-Sutherland line clipping algorithm divides the entire region into……………number of sub regions

1. 4
2. 8
3. 9
4. 10

Q247) If (x,y) is a point inside the clipping window then it’s code according to the Cohen-Sutherland algorithm is…………

1. 0000
2. 0001
3. 1000
4. 1111

Q248) …………………..number of bits are used for representing each subregion of the Cohen-Sutherland line clipping algorithm.

1. 1
2. 2
3. 3
4. 4

Q249) If two bits are zeros and two bits are ones in a code of a subregion in Cohen-Sutherland line clipping algorithm the subregion is ……………………

1. Corner region
2. Middle region
3. Central region
4. None of these

Q250) In the Cohen-Sutherland line clipping algorithm, if the codes of the two points P and Q are 0000 and 0000 then the line segment joining the points P and Q will be ……………………….. the clipping window

1. Totally outside
2. Partially outside
3. Totally inside
4. None

Q251) In the Cohen-Sutherland line clipping algorithm, if the codes of the two points P and Q are 0101 and 0001 then the line segment joining the points P and Q will be ……………………….. the clipping window

1. Totally outside
2. Partially outside
3. Totally inside
4. None

Q252) In the Cohen-Sutherland line clipping algorithm, if the logical AND of the codes of the two points P and Q is 0000 then the line segment joining the points P and Q will be ……………………….. the clipping window

1. Totally outside
2. Partially outside
3. Totally inside
4. None

Q253) If XL, XR, YB, YT represent the four parameters of x-left, x-right, y-bottom and y-top of the clipping window and (x,y) is a point inside the window such that x > XL and x ≤ XR and YB ≤ y ≤ YT the the code of the point (x,y in Cohen-Sutherland algorithm is………………….

1. 1100
2. 1000
3. 1110
4. 0000

Q254) Suppose (x1,y1), (x2,y2),….(xn,yn) are n vertices of a closed polygon and (x,y) is a point such that x is greater than the maximum of {x1, x2, ……., xn} then the point (x,y) lies……………….. the polygon

* 1. Inside
  2. Outside
  3. On
  4. As vertex of

Q255) Suppose (x1,y1), (x2,y2),….(xn,yn) are n vertices of a closed polygon and (x,y) is a point such that x is less than the maximum of {x1, x2, ……., xn} then the point (x,y) lies……………….. the polygon

1. Inside
2. Outside
3. On
4. As vertex of

Q256) Suppose (x1,y1), (x2,y2),….(xn,yn) are n vertices of a closed polygon and (x,y) is a point such that x is greater than the maximum of {y1, y2, ……., yn} then the point (x,y) lies……………….. the polygon

1. Inside
2. Outside
3. On
4. As vertex of

Q257) Suppose (x1,y1), (x2,y2),….(xn,yn) are n vertices of a closed polygon and (x,y) is a point such that x is less than the maximum of {y1, y2, ……., yn} then the point (x,y) lies……………….. the polygon

1. Inside
2. Outside
3. On
4. As vertex of

Q258) In the polygon inside test, if the winding number of a point is zero then the point lies \_\_\_\_\_\_\_\_\_\_\_ the polygon

1. Inside
2. Outside
3. On
4. As vertex of

Q259) The even-odd method of polygon inside test fails for \_\_\_\_\_\_\_\_\_\_\_

1. Self-intersecting Polygons
2. Convex Polygons
3. Concave Polygons
4. Similar Polygons

Q260) Sutherland-Hodgaman algorithm is used for \_\_\_\_\_\_\_\_\_\_\_

1. Line Clipping
2. Point Clipping
3. Polygon Clipping
4. Hybrid Clipping

Q261) Z-buffer algorithm is used for \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Frame buffer removal
2. Hidden line removal
3. Rendering
4. Animation

Q262) The blending functions of Bezier curves are \_\_\_\_\_\_\_\_\_\_\_\_

1. Splines
2. Berstien polynomials
3. Lagrangian polynomials
4. Newton polynomials

Q263) \_\_\_\_\_\_\_\_\_\_\_ are the blending functions for the B-spline curves

1. Splines
2. Berstien polynomials
3. Lagrangian polynomials
4. Newton polynomials

Q264) The properity that Bezier curves do not have but B-splines have is \_\_\_\_\_\_\_\_\_

1. Local control
2. Variation diminishing property
3. Axis independence
4. None

Q265) Two curves are said to be connected at a point with zero order continuity if

1. Both curves simply meet at that point
2. The tangents to both the curves at that point are equal
3. The curvatures of both the curves at that point are equal
4. There is a discontinuity for both the curves at that point

Q266) Two curves are said to be connected at a point with second order continuity if

1. Both curves simply meet at that point
2. The tangents to both the curves at that point are equal
3. The curvatures of both the curves at that point are equal
4. There is a discontinuity for both the curves at that point

Q267) Two curves are said to be connected at a point with first order continuity if

1. Both curves simply meet at that point
2. The tangents to both the curves at that point are equal
3. The curvatures of both the curves at that point are equal
4. There is a discontinuity for both the curves at that point

Q268) Control points are used to control the \_\_\_\_\_\_\_\_\_\_\_ of the curve.

1. Shape
2. Edges
3. Values
4. Iterations

Q269) If Bi.n(x) (1<=i<=n) denotes the Bernstien polynomials of degree n then ∑Bi.n(x)=\_\_\_\_\_\_\_\_\_

1. 0
2. 1
3. 2
4. 3

Q270) NURBS stands for \_\_\_\_\_\_\_\_\_\_\_\_

1. Non Uniform Rational B-splines
2. Non Uniform Rational Bezier Surfaces
3. Non Uniform Rational B-Splines
4. Normal Unit Vector Representation of B-Splines

Q271) The equivalent representation of a two dimensional point (x,y) in the homogeneous coordinate system is \_\_\_\_\_\_\_\_\_\_\_\_

1. (x,y,1)
2. (x,y,0)
3. (x/w,y/w)
4. (x,y,x-y)

Q272) If (x,y,w), w!=0 is a point in the homogeneous coordinate system then it’s equivalent in the two dimensional system is \_\_\_\_\_\_\_\_\_\_\_\_

1. (x,y,1)
2. (x,y,0)
3. (x/w,y/w)
4. (x,y,x-y)

Q273) The two dimensional matrix transformation for translation with a units along x-axis and b units along y-axis is \_\_\_\_\_\_\_\_\_\_\_\_

1. 1 0 0

0 1 0

-a b 1

1. 1 0 0

0 1 0

a -b 1

1. 1 0 0

0 1 0

a -b 1

1. 1 0 0

0 1 0

b a 1

Q274) The two dimensional matrix transformation for rotation with an angle Q with x-axis in anti-clockwise direction is \_\_\_\_\_\_\_\_\_\_\_\_\_

1. cos Q sin Q 0

sin Q cos Q 0

0 0 1

1. cos Q -sin Q 0

sin Q cos Q 0

0 0 1

1. -cos Q -sin Q 0

sin Q cos Q 0

0 0 1

1. cos Q -sin Q 0

-sin Q cos Q 0

0 0 1

Q275) The two dimensional matrix transformation for scaling with a units along x-axis and b units along y-axis is \_\_\_\_\_\_\_\_\_\_\_\_\_

1. a 0 0

0 b 0

0 0 1

1. -a 0 0

0 -b 0

a b 1

1. 1 0 0

0 1 0

a -b 1

1. 1 0 0

0 1 0

b a 1

Q276) The two dimensional matrix transformation for reflection of a point with respect to x-axis is \_\_\_\_\_\_\_\_\_\_\_

1. -1 0 0

0 1 0

0 0 1

1. 1 0 0

0 -1 0

0 0 1

1. 1 0 0

-1 0 0

0 0 1

1. 1 0 0

0 1 0

0 0 -1