



Spring 2013

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CS602- Computer Graphics

Solved MCQs of Mid Term Examination with Reference by Moaaz

Question No: 1 (Marks: 1) - Please choose one

DDA abbreviated for _____.

- None of the given
- Discrete data analyzer
- Digital data analyzer

Digital differential analyzer (Page 54)

Question No: 2 (Marks: 1) - Please choose one

Save a line with both endpoints inside all clipping boundaries is called as _____.

- None of the given
- Total (*inside (maybe)*)
- Trivial Reject

Trivial Accept (Page 142)

Question No: 3 (Marks: 1) - Please choose one

_____ projection is obtained by projecting points along parallel lines that are not perpendicular to the projection plane.

- Perspective
- Orthographic

Oblique (Page 198)

Question No: 4 (Marks: 1) - Please choose one

The dot product of two vectors A and B is _____. If the angle between them is less than 90 or greater than 270 degrees.

Greater than zero (0) (Page 177)

Less than zero (0)
Equal to Zero (0)
None of the given

Question No: 1 (Marks: 1) - Please choose one

This projection technique has the direction of projection perpendicular to the viewing plane, and the viewing direction is perpendicular to one of the principle faces.

metric Parallel Projection
Oblique Parallel Projection
Orthographic Parallel Projection
None of the given

Question No: 5 (Marks: 1) - Please choose one

Orthographic projections that show more than one side of an object are called _____ projections.

Cavalier
Cabinet

Axonometric (Page 196)

Perspective

Question No: 6 (Marks: 1) - Please choose one

Computer Graphics are used in _____.

Movies development
Simulations

All of the given

Game development

Question No: 7 (Marks: 1) - Please choose one

“Computer Graphics” and “Computer Vision” are _____.

Same fields
Interrelated fields
None of the given

Totally different fields http://en.wikipedia.org/wiki/Computer_vision

Question No: 8 (Marks: 1) - Please choose one

We can take transpose of _____.

matrix with 1 row 1 column
matrix with 2 rows 3 columns
matrix with 3 rows 2 columns

any matrix

Question No: 9 (Marks: 1) - Please choose one

If the polygons are _____, line-clipping techniques are sufficient for clipping.

filled

unfilled (Page 146)

half filled

All of the given

Question No: 10 (Marks: 1) - Please choose one

20: Because clipping against one edge is independent of all others, so it is _____ to arrange the clipping stages in a pipeline.

Sometimes impossible

None of the given

Possible (Page 150)

Impossible

Question No: 11 (Marks: 1) - Please choose one

Tessellation can be adaptive to the _____ degree of curvature of a surface.

Local (Page 170)

Static

Global

Variable

Question No: 12 (Marks: 1) - Please choose one

The actual filling process in boundary filling algorithm begins when a point _____ of the figured is selected.

Outside the boundary

Inside the boundary (Page 102)

At boundary

None of the above

Question No: 13 (Marks: 1) - Please choose one

Discard a line with both endpoints outside clipping boundary is called as _____

Trivial accept

Trivial reject (Page 142)

Total outside

None of the above

Question No: 14 (Marks: 1) - Please choose one

_____ is the tendency of the text to flash as it moves up or down.

Flickering (Page 38)

Snow

Distortion

None of the above

Question No: 15 (Marks: 1) - Please choose one

The axonometric projection is _____ where the direction of projection makes same angle with all axes.

DIMETRIC

Isometric (Page 196)

Oblique

Trimetric

Question No: 16 (Marks: 1) - Please choose one

We can draw the circle using _____

Pentane

Hexane

Trident

Octant (Page 63)

Question No: 17 (Marks: 1) - Please choose one

_____ direct view storage tube maintains the picture display.

Electron gun

Proton gun

Flood gun (Page 29)

All of the above

Question No: 18 (Marks: 1) - Please choose one

Because clipping against one edge is independent to all others, so it is _____ arrange the clipping stages in a pipeline.

Possible (Page 150) rep

Impossible

Sometimes impossible

None of the above

Question No: 19 (Marks: 1) - Please choose one

If the polygons are _____ line clipping techniques are sufficient for clipping.

Filled

Unfilled (Page 146) rep

Half filled

All of the above

Question No: 20 (Marks: 1) - Please choose one

Polygons consisting of _____ can cause problems when rendering.

Non-coplanar vertices (Page 169)

Co-planar vertices

Any vertices

None of the above

Question No: 1 (Marks: 1) - Please choose one

In Trivial acceptance/reject test there are four bits of nine regions, Bit3 represents condition _____.

Outside half plane of left edge, to the left of left edge $X < X_{min}$

Outside half plane of right edge, to the right of right edge $X > X_{max}$ (Page 143)

Outside half plane of bottom edge, below bottom edge $Y < Y_{min}$

Outside half plane of top edge, above top edge $Y > Y_{max}$

Question No: 2 (Marks: 1) - Please choose one

Plasma-panel displays use a gas mixture that usually includes _____.

Zinc

Iron

CS602 – Solved Quizzes (Quiz No.1 & 2)

Question No: 1 of 10 (Marks: 1) - Please choose one

A line, or straight line, is, roughly speaking, an (infinitely) thin, (infinitely) long, straight geometrical object.

True (Page 53)

False

Question No: 2 of 10 (Marks: 1) - Please choose one

Both Boundary Filling and Flood filling algorithms are _____ as compared to scan line filling algorithm.

Better

Worse

Almost same

Good

Question No: 3 of 10 (Marks: 1) - Please choose one

$(x^2/a^2) + (y^2/b^2) = 1$ is an equation of _____.

Parabola

Hyperbola

Ellipse (Page 70)

Circle

Question No: 4 of 10 (Marks: 1) - Please choose one

We can draw the circle using _____.

Pentane

Hexanes

Trident

Octants (Page 63) rep

Question No: 5 of 10 (Marks: 1) - Please choose one

A scaling transformation alters the _____ of an object.

Shape

Position

Size (Page 120)

Rotation

Question No: 6 of 10 (Marks: 1) - Please choose one

Boundary Filling Algorithm can work for complex polygons.

True

False

Question No: 7 of 10 (Marks: 1) - Please choose one

A _____ is the set of all points (x , y) that are the same distance from the directrix and focus not on the directrix.

Circle

Hyperbola

Parabola (Page 73)

Ellipse

Question No: 8 of 10 (Marks: 1) - Please choose one

Monochrome Adapter (MA) is a single color adapter

True (Page 38)

False

Question No: 9 of 10 (Marks: 1) - Please choose one

If the value of scaling factors s_x and s_y is greater than 1, then size of objects will be _____.

Reduced

Enlarged (Page 121)

Remain same

Shear

Question No: 10 of 10 (Marks: 1) - Please choose one

In _____ algorithm(s), old color must be read before it is invoked.

Scan line filling

Flood filling (Page 104)

Both scan line and flood filling

Scan filling

Question No: 1 of 10 (Marks: 1) - Please choose one

Parity is a concept used to determine which _____ lie within a polygon.

Edge

Vertices

Pixels (Page 80)

Points

Question No: 2 of 10 (Marks: 1) - Please choose one

Various curve functions are useful in _____.

Object modeling (Page 69)

Graphics applications

Animation path specifications

All of the given

Question No: 3 of 10 (Marks: 1) - Please choose one

polygons are basically concave polygons that may have self-intersecting edges.

Complex (Page 79)

Hybrid

Convex

Convex and Hybrid

Question No: 4 of 10 (Marks: 1) - Please choose one

Concave polygons are a superset of _____ polygons, having fewer restrictions than _____ polygons.

Hybrid, Complex

Concave, Complex

Convex, Convex (Page 79)

Complex, Complex

Question No: 5 of 10 (Marks: 1) - Please choose one

There are _____ basic types of polygon.

2

3 (Page 78)

4

5

Question No: 6 of 10 (Marks: 1) - Please choose one

We can draw eight points corresponding to each (x , y) point calculation in _____ drawing algorithm.

Sutherland

Mid Clipping

Mid Point Circle

Sutherland Clipping

Question No: 7 of 10 (Marks: 1) - Please choose one
the horizontal refresh -----

- Is no longer used in any system
- Is distracting and can cause eye fatigue
- eye into thinking the horizontal refresh rate is faster

Question No: 8 of 10 (Marks: 1) - Please choose one
Computer graphics is very helpful in producing graphical representations for scientific visualization.

True (Page 9)

False

Question No: 9 of 10 (Marks: 1) - Please choose one
In video text memory, _____ are used to display a character.

2 bytes (Page 43)

- 4 bytes
- 8 bytes
- 16 bytes

Question No: 10 of 10 (Marks: 1) - Please choose one
The basis functions $f_i(u)$ in Bezier curve must be symmetric with respect to u and $(u-2)$

Yes

No (Page 341)

Question No: 1 of 10 (Marks: 1) - Please choose one
Three or more points that lie on the same line are called _____.

Singular

Collinear (Page 53)

Line slop

Line slop and Singular

Question No: 2 of 10 (Marks: 1) - Please choose one
Cross product of two vectors result in a _____.

Magnitude

Vector (Page 116)

Scalar

Value

Question No: 3 of 10 (Marks: 1) - Please choose one

To move a _____ from one location to another, we translate the center point and redraw the same using new center point.

Hyperbola

Parabola

Circle (Page 119)

Line

Question No: 4 of 10 (Marks: 1) - Please choose one

_____ is the set of points that are equidistant from its origin.

Line

Parabola

Circle (Page 59)

Ellipse

Question No: 5 of 10 (Marks: 1) - Please choose one

It is safe to assume that all raster-type monitors can accept the same input

True

False

Question No: 6 of 10 (Marks: 1) - Please choose one

Twice the radius of circle is called as _____.

Area

Diameter (Page 59)

2*Pi Radian

Circumference

Question No: 7 of 10 (Marks: 1) – Please choose one

Both Boundary Filling and Flood filling algorithms are non-recursive techniques.

1. True

2. False (Page 102)

Question No: 8 of 10 (Marks: 1) - Please choose one

We can take transpose of any matrix.

- True
- False

Question No: 9 of 10 (Marks: 1) - Please choose one

Normalized cross product of two vectors on that surface provides normal vector

YES (Page 347)

NO

Question No: 10 of 10 (Marks: 1) - Please choose one

Set up your tripod and pointing the camera at the scene

projection transformation

viewport transformation

modeling transformation

viewing transformation (Page 372)

Question No: 1 of 10 (Marks: 1) - Please choose one

_____ is based on characteristic size or scale

Fractal Geometry

Traditional Geometry

Euclidean Geometry

None of Above

Question No: 2 of 10 (Marks: 1) - Please choose one

Bernstein polynomial functions are the basic functions of _____ curves.

NURBS

Bezier

Both NURBS and Bazier (Page 342) not confirm

None of the given

Question No: 3 of 10 (Marks: 1) - Please choose one

Silhouette edges occur when dot product of surface normal vector and the view vector is _____.

Zero (Page 345)

- One
- Both zero and one
- None of the given

Question No: 4 of 10 (Marks: 1) - Please choose one

A fractal is generally a property called _____.

- Fractal Dimension
- Self-similarity
- Koch Curve
- None of above

Question No: 5 of 10 (Marks: 1) - Please choose one

The curve is always contained within the _____ of the control points

- Tangents

Convex Hull (Page 340)

- Subdivision
- None of Above

Question No: 6 of 10 (Marks: 1) - Please choose one

_____ OpenGL function is used for aiming and positioning the camera towards the object

glLoadIdentity()

gluLookAt() (Page 374)

- glFrustum()
- None of Above

Question No: 7 of 10 (Marks: 1) - Please choose one

Bezier curve can represent the more complex piecewise _____ curve.

Polynomial (Page 338)

Exponential

Cubic

None of above

Question No: 8 of 10 (Marks: 1) - Please choose one

Perspective projection is specified with the function glFrustum().

Yes (Page 376)

No

Question No: 9 of 10 (Marks: 1) - Please choose one

Line connecting any two points within a polygon does not intersect any edge, then it will be a _____ polygon.

Convex (Page 79)

Concave

Complex

None of the given

Question No: 10 of 10 (Marks: 1) - Please choose one

The _____ tests are performed for the midpoints between pixels near the circle path at each sampling step.

Parabola function

Eclipse function

Circle function (Page 62)

Line function

Question No: 1 of 10 (Marks: 1) - Please choose one

actual filling process in boundary filling algorithm begins when a point _____ of the figure is selected.

Outside the boundary

Inside the boundary (Page 102) rep

At boundary

None of the given

Question No: 2 of 10 (Marks: 1) - Please choose one

Each hyperbola consists of two _____ .

Vertices

Nodes

Branches (Page 70)

Points

Question No: 3 of 10 (Marks: 1) - Please choose one

Rotating a point requires

The coordinates for the point

The rotation angles

Both of above (Page 180)

None of given

Question No: 4 of 10 (Marks: 1) - Please choose one

Vectors can be multiplied in a way

Dot product

Cross product

Both of above (page 176)

None of given

Question No: 5 of 10 (Marks: 1) - Please choose one

Shortcoming of Sutherland-Hodgeman Algorithm is concave polygons may be displayed with extensors lines

True (Page 244)

False

Question No: 6 of 10 (Marks: 1) - Please choose one

The process of subdivision an entity or surface into one or more non-overlapping primitives.

Rendering

Modeling

Meshing

None of above (page 259)

Question No: 7 of 10(Marks: 1) - Please choose one

In Trivial acceptance/reject test there are four bits of nine regions, Bit 4 represents condition _____.

Outside half plane of left edge, to the left of left edge $X < X_{min}$ (Page 143)

Outside half plane of right edge, to the right of right edge $X > X_{max}$

Outside half plane of bottom edge, below bottom edge $Y < Y_{min}$

Outside half plane of top edge, above top edge $Y > Y_{max}$

Question No: 8 of 10 (Marks: 1) - Please choose one

In Trivial acceptance/reject test there are four bits of nine regions, Bit 2 represents condition _____.

Outside half plane of left edge, to the left of left edge $X < X_{min}$

Outside half plane of right edge, to the right of right edge $X > X_{max}$

Outside half plane of bottom edge, below bottom edge $Y < Y_{min}$ (page 143)

Outside half plane of top edge, above top edge $Y > Y_{max}$

Question No: 9 of 10 (Marks: 1) - Please choose one

_____ is the process of describing an object or scene so that we can construct an image of it

Rendering

Modeling (Page 164)

Meshing

None of above

Question No: 10 of 10 (Marks: 1) - Please choose one

Sutherland-Hodgeman clipping algorithm clips any polygon against a concave clip polygon

True

False (Page 244)

Question No: 1 of 10 (Marks: 1) - Please choose one

Process of moving points in space is called

Rendering

Modeling

Meshing

None of above (Page 259)

Question No:2 of 10 (Marks: 1) - Please choose one

When scaling factor S_x and S_y are assigned the same value, _____ scaling is produced that maintains relative object proportions.

Uniform (page 121)

Unequal

Multiform

Equal

Question No: 3 of 10 (Marks: 1) - Please choose one

_____ transformation produces shape distortions as if objects were composed of layers that are caused to slide over each other.

Rotation

Translation

Reflection

Shear (Page 129)

Question No: 4 of 10 (Marks: 1) - Please choose one

Global coordinate systems can be defined with respect to local coordinate system

True

False (Page 163)

Question No: 1 of 10 (Marks: 1) - Please choose one

The given primitives are clipped to the boundaries of _____ and primitives lying outside are not drawn.

Clipping polygon

Clipping circle

Clipping rectangle (Page 247)

Clipping Line

Question No: 5 of 10 (Marks: 1) - Please choose one

In 2D transformation, _____ can be achieved by rotating the object about 180 degrees.

Translation

Scaling

Shear

Reflection (page 191)

Question No: 6 of 10 (Marks: 1) - Please choose one

Discard a line with both endpoints outside clipping boundaries is called as

Trivial reject (Page 142)

Trivial accept

Total outside

Total inside

Question No: 7 of 10 (Marks: 1) - Please choose one

In _____ transformation one coordinate is held fixed and the other coordinate or coordinates are shifted.

Rotation

Reflection

Shear [click here for detail](#)

Scaling

Question No: 8 of 10 (Marks: 1) - Please choose one

Locations can be translated or "transformed" from one coordinate system to the other. Select correct option:

True (Page 163)

False

Question No: 9 of 10 (Marks: 1) - Please choose one

Geometric patterns that is repeated at ever smaller scales to produce irregular shapes and surfaces are called _____

Geometric patterns

Fractals (page 352)

Animated components

Segments

Question No: 10 of 10 (Marks: 1) - Please choose one
Bezier curve is tangent to the lines connecting _____.

First two points

Last two points

Fist two points and last two point (Page 340)

None of the given

Question No: 1 of 10 (Marks: 1) - Please choose one
Intensity of the electron beam is controlled by setting _____ levels on the control grid, a metal cylinder that fits over the cathode.

▶ Amplitude

▶ Current

▶ **Voltage (Page 26)**

▶ electron

Question No: 2 of 10 (Marks: 1) - Please choose one
Using Cohen-Sutherland line clipping, it is impossible for a vertex to be labeled 1111.

▶ **true**

▶ false

Question No: 3 of 10 (Marks: 1) - Please choose one
Shadow mask methods can display a _____ range of colours.

▶ Small

▶ **Wide (Page 29)**

▶ Random

▶ crazy

Question No: 4 of 10 (Marks: 1) - Please choose one

Which one of the following step is not involved to write pixel using video BIOS services.

- ▶ Setting desired video mode
- ▶ Using bios service to set color of a screen pixel
- ▶ Calling bios interrupt to execute the process of writing pixel.
- ▶ **Using OpenGL service to set color of a screen pixel (Page 45)**

Question No: 5 of 10 (Marks: 1) - Please choose one

Each number that makes up a matrix is called an _____ of the matrix.

- ▶ **Element (page 106)**
- ▶ Variable
- ▶ Value
- ▶ component

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