Program: BE Information Technology

Curriculum Scheme: Revised 2012

Examination: Third Year Semester V

Course Code: TEITC501 and Course Name: Computer Graphics And

Virtual Reality

Time: 1 hour Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

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| Q1.  | The process of representing continuous picture or graphics object as a collection of discrete pixels is called |
| Option A: | Rasterization |
| Option B: | Scan Conversion |
| Option C: | Polarization |
| Option D:  | Vectorization |
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| Q2. | In which system, Electron beam scans only the part of the screen where picture information is present. |
| Option A: | Raster Scan System |
| Option B: | Random Scan System |
| Option C: | Print Scan system |
| Option D: | Display scan System |
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| Q3. | In Bresenham’s line algorithm, if the distances d1 < d2 then decision parameter Pk is |
| Option A: | Positive |
| Option B: | Negative |
| Option C: | Equal |
| Option D: | Greater than 0 |
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| Q4. | In the Midpoint Circle algorithm, if pk is negative then which pixel will be plotted next, considering the current pixel is at (Xk,Yk)? |
| Option A: | (Xk+1, Yk+1) |
| Option B: | (Xk, Yk+1) |
| Option C: | (Xk+1, Yk) |
| Option D: | (Xk+1, Yk-1) |
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| Q5. | In Beizer Curve, which control points lie on the curve of the polygon |
| Option A: | only the first control point |
| Option B: | only the last control point |
| Option C: | only the first and last control points |
| Option D:  | all the control points |
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| Q6. | To geometrically construct a deterministic self similar fractal, we start with a geometric shape called |
| Option A: | Generator |
| Option B: | Initiator |
| Option C: | Constructor |
| Option D:  | obstructor |
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| Q7.  | Polygon filling algorithms that fill interior-defined regions are called |
| Option A: | Scan line polygon fill algorithm |
| Option B: | Inside outside test |
| Option C: | Boundary fill algorithm |
| Option D:  | Flood fill algorithm |
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| Q8.  | Which is not the basic transformation? |
| Option A: | Translation  |
| Option B: | Rotation |
| Option C: | Scaling |
| Option D:  | Reflection |
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| Q9. | The polygons are scaled by applying the following transformation. |
| Option A: | X’=x \* Sx + Xf(1-Sx) and Y’=y \* Sy + Yf(1-Sy) |
| Option B: | X’=x \* Sx + Xf(1+Sx) and Y’=y \* Sy + Yf(1+Sy) |
| Option C: | X’=x \* Sx + Xf(1-Sx) and Y’=y \* Sy – Yf(1-Sy) |
| Option D:  | X’=x \* Sx \* Xf(1-Sx) and Y’=y \* Sy \* Yf(1-Sy) |
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| Q10.  | The general homogeneous coordinate representation can also be written as |
| Option A: | (h.x, h.y, h.z) |
| Option B: | (h.x, h.y, h) |
| Option C: | (x, y, h.z) |
| Option D:  | (x,y,z) |
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| Q11.  | To set line width attributes in a PHIGS package, ................... function is used |
| Option A: | setLineWidthScaleFactor(lw) |
| Option B: | setLineThickness(lw) |
| Option C: | setPolylineWidth(lw) |
| Option D:  | setLineWidth(lw) |
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| Q12.  | Sutherland-Hodgeman clipping is an example of which algorithm |
| Option A: |  curve clipping |
| Option B: | Line clipping |
| Option C: | text clipping |
| Option D: |  polygon clipping |
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| Q13. | How many methods of text clipping are there |
| Option A: | 3 |
| Option B: | 2 |
| Option C: | 1 |
| Option D:  | 4 |
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| Q14.  | A three dimensional graphics has |
| Option A: | Three axes |
| Option B: | Two axes |
| Option C: | Both a & b |
| Option D:  | one axes |
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| Q15. | The wire frame entities are  |
| Option A: | Polygons |
| Option B: | Tabulated surface |
| Option C: | Ruled surface |
| Option D:  | Plane surface |
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| Q16.  | How many minimum numbers of zeros are there in ‘3 x 3’ triangular matrix |
| Option A: | 2 |
| Option B: | 3 |
| Option C: | 6 |
| Option D:  | 9 |
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| Q17. | It refers to simulated motion pictures showing movement of drawn objects. |
| Option A: | Animation |
| Option B: |  Motion |
| Option C: | VR |
| Option D: | SMD |
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| Q18. | What components make up a light source in OpenGL? |
| Option A: | Specular and Ambient. |
| Option B: | Diffuse, Specular, and Ambient. |
| Option C: | Diffuse and Ambient. |
| Option D:  | Diffuse, Opaque, Ambient |
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| Q19.  | Generally, what primitive polygon is used for creating a mesh to represent a complex object? |
| Option A: | Square |
| Option B: | Circle |
| Option C: | Triangle |
| Option D:  | Rectangle |
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| Q20. | Which function call sets up the size of the output area? |
| Option A: | glViewport() |
| Option B: | gluPerspective() |
| Option C: | None of These |
| Option D: | glDisplayfunc() |
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| Q21. | What happens when an object to be drawn is not within the current viewport? |
| Option A: | A warning is given. |
| Option B: | It is drawn by OpenGL even though it is not seen. |
| Option C: | It is ignored. |
| Option D:  | It is clipped from the scene and subsequently not drawn. |
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| Q22.  | The surfaces that is blocked or hidden from view in a 3D scene are known as |
| Option A: | Hidden surface |
| Option B: | Frame buffer |
| Option C: | Quad tree |
| Option D:  | Lost surface |
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| Q23. | A process with the help of which images or picture can be produced in a more realistic way is called |
| Option A: | Fractals |
| Option B: | Quad-tree |
| Option C: | Rendering |
| Option D:  | None of these |
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| Q24.  | \_\_\_\_\_\_\_\_\_is the subclass of the Node in Partial Java 3D API Class Hierarchy  |
| Option A: | Leaf |
| Option B: | Texture |
| Option C: | Material |
| Option D:  | Geometry. |
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| Q25. | \_\_\_\_\_\_\_\_\_\_\_is not NodeComponent subclasses that can be referenced by Appearance in Attribute Classes. |
| Option A: | Sound |
| Option B: | PointAttributes |
| Option C: | LineAttributes |
| Option D:  | PolygonAttributes |