

University of Mumbai
Examination 2020 under cluster 5 (APSIT)

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 .

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
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
Q3.	In Bresenham's line algorithm, if the distances $d_1 < d_2$ then decision parameter P_k is
Option A:	Positive
Option B:	Negative
Option C:	Equal
Option D:	Greater than 0
Q4.	In the Midpoint Circle algorithm, if p_k is negative then which pixel will be plotted next, considering the current pixel is at (X_k, Y_k) ?
Option A:	(X_{k+1}, Y_{k+1})
Option B:	(X_k, Y_{k+1})
Option C:	(X_{k+1}, Y_k)
Option D:	(X_{k+1}, Y_{k-1})
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
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
Q8.	Which is not the basic transformation?
Option A:	Translation
Option B:	Rotation
Option C:	Scaling
Option D:	Reflection
Q9.	The polygons are scaled by applying the following transformation.
Option A:	$X' = x * S_x + X_f(1-S_x)$ and $Y' = y * S_y + Y_f(1-S_y)$
Option B:	$X' = x * S_x + X_f(1+S_x)$ and $Y' = y * S_y + Y_f(1+S_y)$
Option C:	$X' = x * S_x + X_f(1-S_x)$ and $Y' = y * S_y - Y_f(1-S_y)$
Option D:	$X' = x * S_x * X_f(1-S_x)$ and $Y' = y * S_y * Y_f(1-S_y)$
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)
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)
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
Q14.	A three dimensional graphics has
Option A:	Three axes
Option B:	Two axes
Option C:	Both a & b
Option D:	one axes
Q15.	The wire frame entities are
Option A:	Polygons
Option B:	Tabulated surface
Option C:	Ruled surface
Option D:	Plane surface
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
Q17.	It refers to simulated motion pictures showing movement of drawn objects.
Option A:	Animation
Option B:	Motion
Option C:	VR
Option D:	SMD
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
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
Q20.	Which function call sets up the size of the output area?
Option A:	glViewport()

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Option B:	gluPerspective()
Option C:	None of These
Option D:	glDisplayfunc()
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.
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
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
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.
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