

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: TE Information Technology

Curriculum Scheme: Rev 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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| Q1. | In bresenham's algorithm error term is initialized to ? |
| Option A: | 0 |
| Option B: | 1 |
| Option C: | -1/2 |
| Option D: | -1 |
| | |
| Q2. | in which type of motion control method, the motion is controlled and defined in terms of coordinate angles, velocities, or acceleration |
| Option A: | Method based on geometric and kinematics information |
| Option B: | method based on physical information |
| Option C: | method base on logical information |
| Option D: | method based on behavioral information |
| | |
| Q3. | Simulation engine in the VR system is responsible for_____ |
| Option A: | Actually generates the images that users see |
| Option B: | Work required to maintain a virtual environment |
| Option C: | Control how the user navigates and interacts with this virtual environment |
| Option D: | Simulation of the images |
| | |
| Q4. | _____ refers to a technology that interface to the user via the sense of touch by applying forces, vibrations and motion ti the user |
| Option A: | Tessellation |
| Option B: | Haptic technology |
| Option C: | Stencil test |

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| Option D: | Rasterization |
| | |
| Q5. | A Polygon in which the line segment joining any two points within the polygon may not lie completely inside the polygon, is called ___ polygon. |
| Option A: | Convex |
| Option B: | Concave |
| Option C: | Closed |
| Option D: | Complete |
| | |
| Q6. | The seed fill algorithm for filling polygon is classified as ___ fill algorithm and ___ fill algorithm. |
| Option A: | flood, boundary |
| Option B: | even, odd |
| Option C: | edge, flood |
| Option D: | boundary, scan |
| | |
| Q7. | In a boundary fill algorithm for filling a polygon, boundary defined regions may be either ___ connected or ___ connected. |
| Option A: | 2,4 |
| Option B: | 4,8 |
| Option C: | 8,16 |
| Option D: | 8,6 |
| | |
| Q8. | Seed fill algo for filling polygon is ___ algorithm |
| Option A: | recursive |
| Option B: | non-recursive |
| Option C: | Shift |
| Option D: | impulsive |
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| Q9. | Coordinates of window are known as |
| Option A: | Screen coordinates |
| Option B: | World coordinates |
| Option C: | Device coordinates |
| Option D: | Cartesian coordinates |
| | |
| Q10. | A three dimensional graphics has |
| Option A: | Two axes |
| Option B: | Three axes |
| Option C: | one axes |
| Option D: | four axes |
| | |
| Q11. | A three dimensional object can also be represented using |
| Option A: | Method |
| Option B: | Equation |
| Option C: | Point |
| Option D: | formula |
| | |
| Q12. | The most basic transformation that are applied in three-dimensional planes are |
| Option A: | Translation,Scaling,Rotation |
| Option B: | Translation,Scaling |
| Option C: | Scaling,Rotation |
| Option D: | Translation,Rotation |
| | |
| Q13. | Every animation needs a starting and ending point. _____ are used to set these. |
| Option A: | Scenes |
| Option B: | Key frames |

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| Option C: | Blank frames |
| Option D: | Graphic symbols |
| | |
| Q14. | which of the following is geometric modeling scheme |
| Option A: | solid model |
| Option B: | liquid model |
| Option C: | air model |
| Option D: | super state drive model |
| | |
| Q15. | Random-scan system mainly designed for |
| Option A: | Realistic shaded screen |
| Option B: | Fog effect |
| Option C: | Line-drawing applications |
| Option D: | Circle draw |
| | |
| Q16. | The primary output device in a graphics system is_____ |
| Option A: | Scanner |
| Option B: | Video monitor |
| Option C: | Printer |
| Option D: | Keyboard |
| | |
| Q17. | Two dimensional color model are |
| Option A: | RGB and CMYK |
| Option B: | RBG and CYMK |
| Option C: | RGB and CYMK |
| Option D: | RGB and MCRYK |
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| Q18. | The point, from which the observer is assumed to view the object, is called |
| Option A: | View Point |
| Option B: | Point of projection |
| Option C: | Point of observer |
| Option D: | Center of projection |
| | |
| Q19. | Tracking Devices have _____ degree of freedom |
| Option A: | 4 |
| Option B: | 6 |
| Option C: | 5 |
| Option D: | 3 |
| | |
| Q20. | HSD is acronym for_____ |
| Option A: | Head supported display |
| Option B: | Haptic stereo display |
| Option C: | Hand supporting display |
| Option D: | Head stereo display |
| | |
| Q21. | Java 3D is |
| Option A: | object oriented programming |
| Option B: | object abstract model |
| Option C: | reality modeling of object |
| Option D: | abstract model |
| | |
| Q22. | in java 3d the Color Cube object is instance of ____ class |
| Option A: | ColorCube3d |
| Option B: | ColorCube |

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| Option C: | Cube3d |
| Option D: | CubeinColor |
| | |
| Q23. | Which of the following methods is the fastest pixel position calculating method? |
| Option A: | Bressenham's line algorithm |
| Option B: | DDA line algorithm |
| Option C: | MDA algorithm |
| Option D: | Mid-point algorithm |
| | |
| Q24. | If we want to display constant-length dashes, then we need to do the following. |
| Option A: | We must use functions |
| Option B: | We must use line-type functions |
| Option C: | We need to adjust the number of dots |
| Option D: | We need to adjust the number of pixels plotted in each dash |
| | |
| Q25. | Disadvantage of surface model is |
| Option A: | Does not represent the internal feature of the model |
| Option B: | Does not allow for the use of realistics rendering tools |
| Option C: | no guarantee that the model definition is correct,complete or manufacturable |
| Option D: | tend to be realistic |

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| Question | Correct Option (Enter either 'A' or 'B' or 'C' or 'D') |
|-----------------|---|
| Q1. | A |
| Q2. | A |
| Q3. | B |
| Q4 | B |
| Q5 | B |
| Q6 | A |
| Q7 | B |
| Q8. | A |
| Q9. | B |
| Q10. | B |
| Q11. | B |
| Q12. | A |
| Q13. | B |
| Q14. | A |
| Q15. | C |
| Q16. | B |

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| Q17. | A |
| Q18. | D |
| Q19. | B |
| Q20. | A |
| Q21. | A |
| Q22. | B |
| Q23. | B |
| Q24. | D |
| Q25. | A |