160. Grammar S → aAb, A → aAb/a is in

A. LR(1) not in LR(0)
B. LR(0) but not in LR(1)
C. Both LR(0) and LR(1)
D. Neither LR(0) nor in LR(1)

ANSWERS SHEET

1.A	2.A	3.A	4.A	5.A	6.D	7.B	8.C	9.C	10.
11.B	12.C	13.A	14.C	15.A	16.D	17.C	18.C	19.B	20.
21.D	22.A	23.B	24.D	25.A	26.D	27.A	28.D	29.D	30.
31.D	32.A	33.B	34.D	35.B	36.C	37.C	38.A	39.C	40.
41.B	42.D	43.D	44.C	45.A	46.B	47.D	48.D	49.D	50.
51.C,B	52.A	53.C	54.C,D	55.D	56.A,B	57.B	58.B	59.B	60.
61.B	62.B	63.C	64.B	65.B	66.C	67.B	68.C	69.C	70.
71.C	72.B	73.D	74.A	75.B,D	76.B	77.B	78.C	79.A	80.
81.D	82.B,C	83.B	84.D	85.B	86.D	87.C	88.B	89.D	90.
91.D	92.C	93.A	94.C	95.B	96.C	97.B	98.A	99.D	100.
101.D	102.C	103.D	104.A	105.A	106.B,C	107.C	108.B	109.B	110.
111.B	112.C	113.D	114.A	115.B	116.C	117.D	118.D	119.B	120.
121.C	122.B	123.A	124.D	125.D	126.A	127.D	128.B	129.D	130.
131.D	132.D	133.A	134.A	135.D	136.C	137.B	138.D	139.D	140.
141.A	142.A,D	143.B	144.B	145.A,C	146.C	147.A	148.A	149.A	150.
151.A	152.A	153.A	154.D	155.A	156.D	157.A	158.C	159.A	160.

MULTIPLE CHOICE QUESTIONS

Computer Graphics

1. **Expansion of CRT is:**
   A. Cathode Ray Tube
   B. Common Reflection Tube
   C. Computer Related Tube
   D. Common Reflection Tube
2. **The operations of most _____are based on the Standard Cathode ray tubes.**
   A. Scanner B. Printers.
   C. Video monitors. D. Card readers.
3. **A beam of electrons emitted by an electron gun is also called as _____.**
   A. Electric rays B. Cathode rays.
   C. Magnetic rays. D. Infra-red rays.
4. **Expansion of DDA is _____.**
   A. Device Display Analyzer.
   B. Digital Device Analyzer
   C. Digital Differential Analyzer.
   D. Digital Display Analyzer.
5. **Random scan displays are designed to draw all component lines at of a picture _____ times each second.**
   A. 20 to 40. B. 30 to 60.
   C. 40 to 70. D. 20 to 50.
6. **In beam penetration method, _____layers of phosphor are usually used.**
   A. 1 B. 2
   C. 3 D. 4
7. **In beam penetration method, _____and_____ layers of phosphor are usually used.**
   A. Red and green.
   B. Yellow and green
   C. Blue and green.
   D. Orange and green.
8. **VDU is a _____ device**
   A. Processing. B. Input.
   C. Peripheral. D. Hardware.
9. **The operation of the most video monitors is based on the_____ CRT.**
   A. Static.
   B. Dynamic.
   C. Standard.
   D. Pervasive.
10. **In cathode ray tube, a beam of electrons is emitted _____.**
    A. From the base.
    B. By an electron gun.
    C. By a focusing system.
    D. By deflection plates
11. **The negatively charged electrons inside the CRT are then accelerated towards the_____.**
    A. Phosphor coating
    B. Base
    C. Electron gun.
    D. Electron beam object
12. **The magnetic field produced by each pair of coils results in____ deflection force.**
    A. Transverse. B. Magnetic.
    C. Slopping. D. Repulsive.
13. **A major difference between phosphors is their _____.**
    A. Permanent state.
    B. Feebleness.
    C. Persistence.
    D. Magnetic deflection.

14. The diagonal screen dimension of a personal computer system is given as the sizes varying from about _____ inches or more.
A. 12 to 21. B. 27 to 12.
C. 0 to 27. D. 4 to 12.

15. Picture definition is stored in _____ buffer area in memory.
A. Frame. B. Outer.
C. Refresh. D. Restore.

16. The rate at which the picture is redrawn on the screen is called _____ rate.
A. Buffer. B. Refresh.
C. Draw. D. Delete.

17. A system with 24 bites per pixel & a screen resolution of 1024 by 1024 requires_____ mega byte of storage for frame buffer.
A. 9. B. 7.
C. 3. D. 2.

18. In a black and white system _____ per pixel is needed to control the intensity of screen positions.
A. 0 bit. B. 1 bit.
C. 2 bits. D. 3 bits.

19. In a high quality system _____ bits per pixel is needed to control the intensity of screen positions.
A. 8. B. 12.
C. 16. D. 24.

20. On a black and white system with one bit per pixel, the frame buffer is commonly called as _____.
A. Pixmap. B. Pelmap
C. Bitsmap. D. Bitmap.

21. For systems with multiple bits per pixel, the frame buffer is commonly called as _____.
A. Pixmap. B. Pelmap
C. Bitsmap. D. Bitmap

22. Refresh rate near to _____ frames per second is an effective technique for avoiding flicker.
A. 60. B. 45.
C. 30 D. 15.

23. Random scan monitors draw a picture _____ at a time.
A. One pixel. B. One line.
C. Two pixel. D. Two line.

24. In raster scan system the _____ beam is swept across screen.
A. Electron. B. Magnetic
C. Electro D. Electro thermal

25. In raster scan system the electron beam is swept across screen from__.
A. Right to left. B. Bottom to top.
C. Top to bottom. D. Side to side.

26. A CRT monitor displays color picture by using a combination of phosphor that emits light of _____ color
A. Same. B. Different.
C. Many. D. Only one.

27. Shadow mask methods are commonly used in raster scan system including _____.
A. Monitor.
B. Random scan system.
C. Beam penetration method.
D. Color tv

28. In flat panel display the emissive displays are devices that convert electric energy into_____.
A. Obscurity
B. Light energy.
C. Stimulating energy.
D. Non emitting energy.

29. In liquid crystal display the flat panel device is referred to as a LCD.
A. Matrix. B. Passive.
C. Active. D. Submissive.

30. The refresh buffer also called a ___ buffer.
A. Frame. B. Element.
C. Resolution. D. Bitmap.

31. Each screen point is referred to as a_____.
A. Point. B. Pixel.
C. Position. D. Element.

32. Refreshing on raster-scan displays is carried out at the rate of 60 to 80 ___per second.
A. Points. B. Pixels
C. Positions D. Frames.

33. The raster-scan systems, each frame are displayed in two passes using an_____ procedure.
A. Interlaced refresh.
B. Providing.
C. Refresh.
D. Vector-displays.

34. The magnetic field produced by each pair of coils results in a _____.
A. Transverse deflection force.
B. Electron beam.
C. Generic field
D. Horizontal deflection.

35. A property of video monitors is___.
A. Length. B. Centimeter
C. Direction D. Aspect ratio.

36. Intensity of the electron beam is controlled by setting voltage levels on the____.
A. Control panel. B. Connector pins.
C. Electron gun. D. Control grid.

37. The _____ emits a small spot of light at each position contacted by the electron beam.
A. Electron gun. B. Phosphor
C. Control grid. D. Cathode.

38. The maximum number of points that can be displayed without overlap on a CRT is referred to as its_____.
A. Persistence. B. Resolution
C. Non persistence. D. Distribution.

39. Sterio scopic viewing is also a part in_____.
A. Virtual reality system.
B. Actual reality system.
C. Essential system
D. Implicit system.

40. The output devices in a graphics system is a _____.
A. Video monitor.
B. Cathode ray tube.
C. Video display devices.
D. Deflection CRT.

41. The focusing system in a CRT is needed to force the electron beam to converge into a _____as it strikes the phosphor.
A. Large spot. B. Small spot.
C. Double spot D. Spot.

42. A shadow-mask CRT has_____ phosphor color dots at each pixel position.
A. Five. B. Four
C. Three D. Two.

43. The_____ shadow-mask method is commonly used in color CRT systems.
A. Delta-delta. B. Beta-beta.
C. Delta-beta. D. Alpha-alpha.

44. Color CRTs in graphics systems are designed as_____.
A. CRT monitors.
B. DVST monitors.
C. RGB monitors.
D. Color monitors.

45. DVST stands for _____.
A. Device View Storage Tube.
B. Direct View Storage Tube.
C. Direct View Space Tube.
D. Device View Space Tube.

46. The emissive displays are device that convert electrical energy into_____.
A. Light. B. Image
C. Pixel D. Colors

47. The plasma is also called as _____ displays.
A. Image. B. Glass
C. Gas-discharge. D. Glass-discharge

48. A beam of slow electrons excites only the outer_____ layer.
A. Blue. B. Green
C. White D. Red

49. A beam of very fast electrons penetrates through the red layer and excites the inner _____ layer.
A. Blue. B. Green
C. White D. Red

50. LED stands for_____.
A. Light Emitted Display.
B. Light Emitting Diode.
C. Light Emitting Display.
D. Light Emit Diode.

51. BSP Stands for_____
A. Bit Space-Partitioning.
B. Bit Space- positioning.
C. Binary Space- Partitioning.
D. Binary Space- Positioning.

52. The simplest model for a light emitter is _____.
A. Light source. B. Data source.
C. Open source. D. Point source.

53. _____algorithm are broadly classified according to whether they deal with object definitions directly or with their projected images.
A. Line clipping.
B. Visible surface detection.
C. Simple DDA.
D. Midpoint algorithm.

54. _____is applied in an object by pre-positioning along a straight line.
A. Translation. B. Scaling
C. Rotation D. Shearing

55. A_____ is a transformation that produces a mirror image of an object.
A. Reflection. B. Translation
C. Shear D. Rotation

56. _____ generally refers to any time sequence of visual changes in a scene.
A. Computer animation.
B. Visualization.
C. Graphics
D. Frame work.

57. A world coordinate area selected for display is called as_____.
A. Window.
B. Window-to-viewport.
C. Viewport
D. Viewing transformation.

58. One of the oldest and most popular line clipping procedure is_____.
A. Liang-Barsky Line Clipping.
B. Nicholl-Lee-Nicholl Line Clipping.
C. Cohen-Sutherland Line Clipping.
D. Line Clipping using Nonrectangular Clip window.

59. A commonly used image space approach to detect visible surface is_____.
A. Buffer depth method.
B. Polygon surface method.
C. Surface rendering method.
D. Depth buffer method.

60. An illumination model is also called as_____.
A. Lighting model.
B. Shading model.
C. Surface model.
D. Rendering model.

61. The scattered light is called as_____.
A. Specular reflection.
B. Ambient light.
C. Source light.
D. Defuse reflection.

62. The area subdivision method takes advantage of area coherence in a scene by location of those view areas that represent the part of a _____.
A. Double surface. B. Triple surface.
C. Single surface. D. Area surface.

63. Orthographic projection that displays more than one face of an object is called _____.
A. Axonometric orthographic projection
B. Orthographic axonometric projection
C. Projection axonometric orthographic.
D. Projection orthographic axonometric.

64. Spotlights are used to control the amount of light emitted within a cone with apex at _____source position.
A. Line. B. Object
C. Point D. Out

65. An area on a display device to which a window is mapped is called as___.
A. View map. B. Path map.
C. View port. D. Path graph.

66. The scaling transformation alters the size of an_____.
A. Vector. B. Edge
C. Side D. Object

67. The set of unit vectors is called___.
A. Vector basis.
B. Orthogonal basis.
C. Normal basis
D. Base vectors.

68. A matrix with a single row or a single column represents a____.
A. Vector. B. Square
C. Row vector. D. Column vector.

69. The matrix with same number of rows and columns is called as____.
A. Square matrix.
B. Column matrix.
C. Row matrix.
D. Row, column matrix.

70. Vector V is called the_____.
A. World coordinate.
B. Fixed-size.
C. View up vector.
D. Direction

71. The region against which an object is to be clipped is called as_____.
A. World coordinate.
B. Clip window
C. View port
D. Boundaries

72. The two-dimensional viewing transformation is simply referred to as the window-to-viewport transformation or the_____.
A. Viewing pipeline
B. Windowing transformation.
C. Transformation.
D. World coordinates.

73. A standard method for fitting a function to a set of data points is called as_____ algorithm.
A. Fitting. B. Straight-line
C. Least-squares D. DDA

74. The three color parameters in HLS color model are _____.
A. Hue, lightness and saturation.
B. Hue, light and saturation.
C. Height, lightness and saturation.
D. Hue, lightness and scaling.

75. The depth-buffer method is also called as_____.
A. A-buffer. B. C-buffer
C. Z-buffer D. W-buffer.

76. CSG stands for
A. Constructed Solid Geometry.
B. Construct Solid Geometry.
C. Concatenate Solid Geometry.
D. Constructive Solid Geometry.

77. The most straight forward method for defining a motion square is_____ specification.
A. Higher. B. Complete
C. Indirect D. Direct

78. One of the most popular methods for finding roots of nonlinear equations is the _____algorithm.
A. Raphson.
B. Newton
C. Root
D. Newton-raphson.

79. Curve-fitting techniques are often used to specify the animation paths between_____.
A. Two elements. B. Two positions.
C. Key frames D. Key elements.

80. _____ description is a typical task in an animation specification.
A. Vector. B. Scene
C. Frame D. Action

81. _____system allows object motion characteristics to be specified as part of the object definitions.
A. Parametric. B. Specialized
C. Adjustable D. Parameterized

82. We can also animate object along 2D motion paths using the _____ transformations.
A. Table-color.
B. Coordinate origin.
C. Color-table
D. Fixed point

83. Constant-intensity shading is also called as_____ shading.
A. Intensity. B. Constant
C. Flat D. Polygon

84. A fast and simple method for rendering an object with polygon surfaces is called as _____shading.
A. Intensity.
B. Constant
C. Constant-intensity.
D. Polygon

85. Procedure for determining visibility of object edges are referred to as_____ visibility methods.
A. Surface. B. Window
C. Wireframe D. Background

86. A drawback of the depth-buffer method is that it can only find one visible surface at each ____ position.
A. Depth. B. Visible
C. Display D. Pixel

87. The A-buffer has two fields, the depth field and _____field.
A. Surface. B. Accumulate
C. Intensity D. Pixel

88. The A-buffer has two fields, the _____field and intensity field.
A. Surface. B. Accumulate
C. Depth D. Pixel

89. The parallelepiped is mapped into the unit cube in a normalized view volume called the_____ system.
A. Normalized coordinate projection.
B. Normalized coordinate.
C. Coordinate projection.
D. Normalized projection coordinate.

90. The emissive displays are devices that convert _____ energy to light
A. Electrical. B. Magnetic
C. Mechanical D. Wind

91. The emissive displays are devices that convert electrical energy to _____.
A. Light. B. Magnetic
C. Mechanical D. Wind

92. The non-emissive displays are devices that convert _____ to graphics pattern.
A. Sunlight. B. Magnetic
C. Mechanical D. Wind

93. The non-emissive displays are devices that convert sunlight or light from other sources to _____.
A. Graphics pattern. B. Mechanical
C. Magnetic D. Wind

94. _____ is also called as gas-discharge displays.
A. LED. B. Plasma panel
C. LCD D. CRT

95. RGB color system with 24 bits of storage is also called as _____ color system.
A. False. B. Full
C. Half D. Finite

96. A three dimensional reflection can be performed relative to a selected reflection axis or with respect to a selected _____.
A. Rotations.
B. Matrix form
C. Reflection plane
D. Edges

97. _____ modeling packages often provide a number of construction techniques.
A. Scale. B. Solid
C. View D. Coordinate

98. _____representations are useful for constructing 3D objects that possess translational, rotations or other symmetries.
A. Buffer. B. Periodic
C. Sweep D. Spline

99. The primary output device in a graphics system is _____.
A. Joy stick. B. Light pen
C. Key board. D. Monitor

100. The operation of most video monitors is based on the standard _____.
A. Cathode ray device.
B. Cathode ray tube.
C. Cathode device
D. Cathode rode.

101. Spots of _____ are produced on the screen by the transfer of the CT beam energy to the phosphor.
A. Sound. B. Energy
C. Light D. Platelet

102. Proper deflection amounts are attained by adjusting the _____ through the coils.
A. Current. B. Heat
C. Intensity D. Voltage

103. The most common types of graphics monitor employing a CRT is the _____ scan.
A. Raster B. Random
C. CRT D. Electron

104. The term _____ refers to the total screen area.
A. Screen B. Gun
C. Frame D. Pixel

105. The number of bits per pixel in the frame buffer is called _____buffer area.
A. Width of the buffer.
B. Height of the buffer area.
C. Depth of the buffer area.
D. Color of the buffer area.

106. At the end of scan line, the electron beam returns to the ___side of the screen.
A. Up. B. Bottom
C. Right D. Left

107. Refresh rates are described in units of _____.
A. Pixel. B. Meter
C. Hertz D. Cubic

108. After refreshing each scan line is called the _____.
A. Vertical retrace.
B. Interlace
C. Horizontal retrace.
D. Buffer line.

109. Example of a random-scan display is_____.
A. Pen plotter. B. Mouse
C. Keyboard D. Printer

110. Refresh _____ depends on the number of times to be displayed.
A. Rate. B. Times
C. Pixel D. System

111. Refresh display file is called the_.
A. Display unit
B. Display processor
C. Display list
D. Display file

112. _____ ball is a two dimensional positioning device.
A. Mouse. B. Track
C. Space D. Thumb

113. The LEDs in touch panel operate at IR frequencies, so that the light is _____ to a user
A. Visible. B. Not visible
C. Partially visible D. Blurred

114. A light pen activated with a _____.
A. Button. B. Switch
C. Pointer D. Button switch.

115. _____ scanner with a resolution of 600 dots per inch.
A. Desktop full-color.
B. Rum
C. Flatbed
D. Color

116. Input devices used in particular applications are _____.
A. Trackball. B. Space ball
C. Joystick D. Data gloves

117. A/An _____Device is any device that provides information, which is sent to the CPU.
A. Input. B. Output
C. CPU D. Memory

118. _____ tablets use sound waves to detect a stylus position
A. Acoustic or Sonic.
B. Data & Acoustic
C. Sonic or Data.
D. Graphic or data

119. Buttons and switches are often used to input _____.
A. Numbers.
B. Predefined Functions
C. Inputs
D. Values

120. Isometric joystick have _____ stick.
A. Movable. B. Non-movable.
C. Partial movable D. Static

121. To be able to select positions in any screen area with a light pen, we must have some _____ intensity assigned to each screen pixel.
A. Zero. B. One
C. Non-zero D. None

122. _____representations are useful for constructing 3D objects that possess translational, rotations or other symmetries.
A. Buffer. B. Periodic
C. Sweep D. Spline

123. _____ are common devices for entering scalar values.
A. Dials. B. Keyboards
C. Mouse D. Joystick

124. What is the latest write-once optical storage media?
A. Digital paper.
B. WORM disk.
C. Magneto-optical disk
D. CD-ROM disk.

125. _____ are used to measure to dial rotations.
A. Spectrometer. B. Potentiometer
C. Voltmeter D. Ammeter

126. Digital devices are_____.
A. Digital clock.
B. Clock with a dial and two hands.
C. Automobile speed meter.
D. All of them.

127. An output device that uses words or messages recorded on a magnetic medium to produce audio response is_____.
A. Magnetic tape.
B. Voice recognition unit.
C. Voice response unit.
D. Voice band.

128. _____ procedure accepts the coordinates of an inter point.
A. Scan fill. B. Boundary fill.
C. Poly fill. D. Area fill

129. _____ is applied to regions by displaying sets of parallel lines.
A. Line fill. B. Solid fill.
C. Hatch fill D. Empty fill.

130. Changes in orientation, size and shape are accomplished with_____.
A. Geometric transformation.
B. Antialiasing
C. Translation
D. Transposition

131. _____ is applied to an object by repositioning it along a straight line path from one coordinate location to another.
A. Rotation. B. Scaling
C. Translation D. Transformation

132. The translation distance pair (tx, ty) is called_____.
A. Sector shift.
B. Matrix vector.
C. Shift vector.
D. Coordinate vector

133. The applications of the _____ mouse include virtual reality, CAD, animation.
A. X B. Optical
C. Opt mechanical D. Z

134. Space ball is used for _____ dimensional positioning.
A. 2. B. 3
C. 1 D. 1 and 2.

135. Offline device is a/an _____.
A. Device which is not connected to CPU.
B. Device which is connected to CPU
C. Direct access storage device
D. I/O device.

136. The Z mouse features three button, _____underneath.
A. Mouse ball. B. Underwheel
C. Thumbwheel D. Trackball

137. The Z mouse features _____ buttons.
A. 2 B. 3
C. 4 D. 5

138. The Z mouse features three buttons, mouse ball underneath, _____on the side.
A. Thumbwheel. B. Trackball
C. Mouse ball D. Underwheel

139. Joystick consist of _____
A. Stick. B. Ball
C. Wheel D. Ball

140. _____ transformation alters the size of an object.
A. Rotation. B. Scaling
C. Translation D. Transferring

141. Uniform scaling is produced that maintains relative object _____.
A. Shape. B. Vector
C. Scalar D. Proportions

142. The location of the scaled object can be controlled by choosing a position called_____.
A. Vector position. B. Variable point.
C. Scalar position. D. Fixed point

143. Unequal values of sx and sy results in _____ scaling.
A. Integral. B. Differential
C. Same D. Different

144. Uniform scaling of a circle is simple done by adjusting the _____.
A. Side. B. Radius
C. Circumference D. Area

145. _____ is obtained by calculating the matrix product of individual transformations.
A. Matrix transformation.
B. Composite transformation matrix.
C. Finite transformation matrix.
D. Infinite transformation matrix.

146. The world coordinates area selected for display is called _____.
A. Window. B. Glow
C. View D. Scene

147. An area on the display device to which a window is mapped is called_____.
A. Viewport. B. Glow
C. View D. Scene

148. The mapping of a part of a world coordinate scene to a device coordinate is referred to as _____ transformation.
A. Viewing. B. Finite
C. Composite D. Infinite

149. The area of a picture that is selected for viewing is called _____.
A. Window. B. Glow
C. View D. Scene

150. Translation is a _____body transformation that moves objects without deformation.
A. Rigid. B. Fixed
C. Flexible D. Single

151. _____ is a rigid body transformation that moves objects without deformation.
A. Rotation. B. Scaling
C. Translation D. Transformation

152. A two dimensional_____ is applied to an object by repositioning it along a circular path in the xy plane.
A. Rotation. B. Scaling
C. Translation D. Transformation

153. Successive scaling operations are __.
A. Additive B. Subtractive
C. Multiplicative D. Infinite

154. A rigid body change in coordinate positions is referred to as _____ transformation.
A. Rigid body
B. .Rigid
C. Rigid motion
D. Rigid changing

155. _____ often involve inverse matrix calculations.
A. Matrix transformation.
B. Composite transformation.
C. Finite transformation matrix.
D. Infinite transformation matrix.

156. _____ is a transformation that produces a mirror image of an object.
A. Shape. B. Vector
C. Scalar D. Reflection

157. When objects are to be displayed with color or shaded surfaces we apply_____.
A. Object rendering.
B. View rendering
C. Surface rendering
D. Parameter rendering.

158. _____ include the intensity and positions of light sources and general background illumination required for a scene.
A. Object rendering.
B. Viewing specifications.
C. Surface rendering
D. Lighting specifications

159. In surface rendering procedures can then be applied to generate at the correct illumination and _____ of the scene.
A. Viewing specifications.
B. Contrast
C. Color
D. Shadow regions.

160. Objects displayed with _____, so that the intensity of lines decreases from the front to the back of the object.
A. Depth cueing
B. Parallel projection.
C. Perpendicular projection.
D. Perspective projection.

161. _____removes the part of the visible surfaces to show internal structure.
A. Surface rendering.
B. Surface identification.
C. Cutaway view.
D. Exploded view.

162. Three dimensional views can be obtained by ____a raster scan image from a vibrating flexible mirror.
A. Reflecting. B. Observing
C. Refracting D. Deflecting

163. Stereoscopic devices present _____ views of the scene.
A. 1 B. 2
C. 3 D. 4

164. The mirror image for a two dimensional reflection is generated relative to an _____ by rotation the object 180 degrees about the reflection axis.
A. Axis of refraction.
B. Axis of reflection.
C. Axis of restoration.
D. Axis of deflection

165. The mirror image for a two dimensional reflection is generated relative to an axis of reflection by rotation the object _____ degrees about the reflection axis.
A. 90. B. 180
C. 270 D. 360

166. _____transformations can be used to modify object shape.
A. Translation. B. Shear
C. Reflection D. Scaling

167. _____ can be assigned as shear parameter.
A. Integer.
B. Random Number.
C. Real Number
D. Floating Point.

168. Translation, rotation, scaling, reflection are examples of _____.
A. Point plotting.
B. Graphics
C. Image transformation.
D. 2D transformation

169. Which table can be expanded so that vertices are cross referenced to corresponding edges?
A. Vertex table.
B. Edge table.
C. Polygon table.
D. Expanded vertex table.

170. Every vertex is the end point for at least _____ edge.
A. 1 B. 2
C. 3 D. 4

171. Each polygon has at least _____ shared edge
A. 1 B. 2
C. 3 D. 4

172. _____can be constructed with various combination of plane and curved surfaces.
A. Objects.
B. Surface
C. Object boundaries.
D. Surface boundaries

173. Graphics package often provide routines for displaying internal components or _____ view of solid objects.
A. Cross sectional. B. Cross fill.
C. Hatch fill. D. Solid fill.

174. _____ rendering algorithms must be applied if a realistic rendering of the scene is required.
A. Object. B. Surface
C. View D. Parameter

175. The coordinate reference defines the _____ for the plane of the camera film.
A. Plane and surface.
B. Position and interface.
C. Plane and coordinate.
D. Position and orientation

176. The easiest rotation axes to handle are those that are _____ to the coordinate.
A. Parallel. B. Straight
C. Perpendicular D. Opposite

177. _____transformations can be used to modify object shape.
A. Translation. B. Shear
C. Reflection D. Scaling

178. The line joining the red and the violet spectral points, called as _____ line.
A. Violet line. B. Magenta line
C. Red line. D. Purple line.

179. Different tints are produced by adding _____ pigment to the original color.
A. Red. B. Blue
C. Black D. White

180. GKS stands for _____.
A. Graphical kernel system.
B. Graphics kernel symbol.
C. Graphics kernel system.
D. Graphics kernel systems.

181. Visual pigment red have a peak sensitivity at wavelength of about _____ nm.
A. 740. B. 630
C. 530 D. 450

182. The dominant frequency is also called as _____.
A. Saturation. B. Hue
C. Luminance D. Brightness

183. Data glove is used to grasp _____ object.
A. Binary. B. Virtual
C. Existing D. Real

184. Space partitioning representation is to describe interior properties by partitioning the spatial region containing an object into a set of small, non-overlapping contiguous__.
A. Objects. B. Solids
C. Triangles D. Liquid

185. _____ for a three dimensional graphics object is a set of surface polygons that enclose the object interior.
A. Surface rendering.
B. Surface identification.
C. Space partitioning representations.
D. Boundary representations.

186. A polygon mesh approximation to a curved surface can be improved by dividing the surface into smaller_____.
A. Polygon facets. B. Squares
C. Octagon facets. D. Circles

187. A way of storing _____ is to create lists namely vertex table, edge table and polygon table.
A. Convergence data.
B. Polygon surface table.
C. Storage table.
D. Geometric data.

188. The edge table contains pointers back to the _____ to identify vertices for each polygon edge.
A. Vertex table.
B. Edge table.
C. Polygon table.
D. Expanded vertex table.

189. In a _____ parallel lines in the world coordinate scene project into parallel lines on the two dimensional display plane.
A. Plane projection.
B. Parallel projection.
C. Perpendicular projection.
D. Perspective projection.

190. In _____, parallel lines in the scene that are not parallel to the display plane are projected into converging lines.
A. Plane projection.
B. Parallel projection
C. Perpendicular projection
D. Perspective projection.

191. _____ is applied by choosing maximum and minimum intensity values and a range of distances over which the intensities are to vary.
A. Depth cueing.
B. Parallel projection.
C. Perpendicular projection.
D. Perspective projection.

192. The side of the plane that faces the _____ is called the inside face.
A. Object exterior. B. Object
C. Object interior D. Solid

193. The side of the plane that faces the _____ is called the outward face.
A. Object exterior. B. Object
C. Object interior. D. Solid

194. When polygons are specified with more than _____ vertices, it is possible that the vertices may not all lie in one plane.
A. 3 B. 2
C. 1 D. 0

195. _____ is the number of control points in a Beizer curves.
A. Polynomial.
B. Beizer polynomial
C. Curve polynomial.
D. Beizer integer.

196. Natural objects can be realistically described with _____.
A. Natural geometry.
B. Fractal geometry.
C. Similarity geometry.
D. Euclidean geometry.

197. The representation of the amount of variation in object detail is represented with _____.
A. Fractal geometry.
B. Fractal definition.
C. Fractal dimension
D. Fractal generation.

198. In depth cueing the lines farther are displayed with _____.
A. Increasing intensity.
B. Increasing color.
C. Decreasing intensity
D. Decreasing color.

199. A technique commonly used for engineering drawing is to display the non-visible lines as _____ lines.
A. Straight. B. Dot
C. Curved D. Dashed

200. _____ describe a three dimensional object as a set of surfaces that separate the object interior from the environment.
A. Surface rendering.
B. Surface identification.
C. Space partitioning representations.
D. Boundary representations.

201. Sound pressure levels are measured in _____.
A. Decibels. B. Ounce
C. Pound D. Fathom

202. MIDI stands for _____.
A. Music instruction digital interface.
B. Musical instrument digital interface.
C. Musical instrumental digital interface
D. Music instrument digit interface

203. Digital audio data is the actual representation of a _____.
A. Light. B. Music
C. Sound D. Noise

204. Digital audio data is also called as _____.
A. Tracks. B. Probable
C. Examples D. Samples

205. In Windows, system sounds are _____ files.
A. .Rar. B. .Wav.
C. .3gp. D. .Wmv.

206. MIDI files are _____ than CD quality digital audio files.
A. Larger. B. Too large
C. Smaller D. Equal

207. The sampling frequencies often used in multimedia are _____.
A. KHz. B. MHz
C. GHz D. DHz

208. The value of each sample is rounded off to the nearest integer known as _____.
A. Samplization. B. Quantification
C. Quantization D. Digitations

209. The amount of information stored about each sample is the _____.
A. Sample no. B. Sample size.
C. Sample volume. D. Sample unit

210. LEDs operate on _____ frequencies.
A. Optical. B. Infra
C. Infrared D. Electro

211. Digitized sound is the _____ sound.
A. Sampled. B. Covered
C. Diluted D. Modified

212. Sample size are _____ bits.
A. 2 B. 4
C. 6 D. 8

213. A 16-bit sample provides a staggering _____ units.
A. 16,384. B. 32,786.
C. 65,536. D. 84,658.

214. Removing of dead air or blank space from a front of the recording is known as _____.
A. Trimming. B. Cutting
C. Editing D. Erasing

215. MIDI sounds are typically stored in files with the _____ extensions.
A. .MDI. B. .MID.
C. .MIDI. D. .MDII.

216. A popular effect in which one image transforms into another is known as _____.
A. Animation. B. Encrypting
C. Modifying D. Morphing

217. PAL stands for _____.
A. Pass alternative line.
B. Pass alternate line.
C. Phase alternative line.
D. Phase alternate line

218. HDTV stands for _____.
A. High defined television.
B. Higher definition television.
C. High definition television
D. Higher defined television.

219. Light comes from an _____.
A. Electron. B. Cathode
C. Atom D. Radium

220. VGA stands for _____.
A. Video graphics array.
B. Video graph array.
C. Visual graphics array.
D. Visual graph array.

221. The area on a display device to which a window is mapped is called a____.
A. Window. B. View port
C. Coordinate D. Section

222. A world coordinate area selected for display is called _____.
A. Window. B. View port
C. View point D. Section

223. The region against which an object is to clipped is called a _____.
A. Clipping. B. View port
C. Window D. Clip window

224. The location of the point relative to the boundaries of the clipping rectangle is called _____code.
A. Location. B. Binary
C. Region D. Area

225. The region code of the clipping rectangle is _____.
A. 0000. B. 0001
C. 1000 D. 1111

226. A region code is a _____ digit binary code.
A. 16 B. 8
C. 4 D. 2

227. All-or none _____strategy is used to keep all of the string inside a clip window.
A. Word clipping.
B. Character clipping
C. Object clipping
D. String clipping

228. The picture parts to be saved are those that are outside the region is referred as _____clipping.
A. Outside. B. Exterior
C. External D. Extreme

229. _____ are used to describe interior properties by partitioning the spatial region containing an object into a set of small, non-overlapping contiguous solids.
A. Surface rendering.
B. Surface identifications.
C. Space partitioning representation
D. Boundary representations.

230. _____ generally refers to any time sequence of visual changes in a scene.
A. Computer animation.
B. Visualization
C. Graphics
D. Frame work

231. Analogy with two-dimensional polar co-ordinates the dimensions unit for solid angles is called the _____.
A. Steradian. B. Angle
C. Solid angle. D. Co-ordinates.

232. A _____ model is a method for explaining the properties or behavior of color within some particular control.
A. Single color model
B. Color
C. Light color
D. Spectral color

233. The dominant frequency is also called as the _____.
A. Hue. B. Color
C. Frequency D. Wavelength

234. The team _____ is used to refer collectively two properties describing color characteristics purity and dominant frequency.
A. White light source.
B. Purity
C. Chromaticity
D. Saturation

235. _____as the most commonly used boundary presentation for a 3-D graphics object
A. Data polygon
B. System polygon
C. Surface polygon
D. Area polygon

236. A three dimensional object can also be represented using_____
A. Method B. Equation
C. Point D. Line

237. _____is a simple object space algorithm that removes about half of the total polygon in an image as about half of the faces of objects are back faces
A. Wire frame model
B. Constructive solid geometry methods
C. Isometric projection
D. Back face removal

238. By which, we can take a view of an object from different directions and different distances.
A. Projection B. Translation
C. Rotation D. Scaling

239. The projection that can be viewed as the projection that has a centre of projection at a finite distance from the plane of projection are called
A. Parallel projection
B. Isometric projection
C. Perspective projection
D. Geometric projection

240. The surfaces that is blocked or hidden from view in a 3D scene are known as _____.
A. Hidden surface B. Quad tree
C. Frame buffer D. Area buffer

241. _____ surface algorithm is based on perspective depth.
A. Depth comparison
B. Z-buffer or depth-buffer algorithm
C. Subdivision method
D. Back-face removal

242. In _____ year Z- buffer algorithm are described.
A. 1995 B. 1974
C. 1945 D. 1981

243. Z -buffer algorithm are _____.
A. Simplest algorithm
B. Largest algorithm
C. Complex algorithm
D. Poor algorithm.

244. The painter algorithm are based on the property of _____.
A. Polygon buffer B. Depth buffer
C. Frame buffer D. Area buffer

245. _____ type of projection does not have the projection rays parallel to each other.
A. Axonometric projection
B. Orthographic projection
C. Oblique projection
D. Perspective projection

246. _____are the three principal planes in orthographic projection.
A. Front, top, profile
B. Top, front, right side
C. Back, top, profile
D. Frontal, horizontal, profile

247. The painter algorithm were developed on _____.
A. 1972 by Newell
B. 1974 by Cat mull
C. 1972 by Evans
D. 1976 by Evans

248. All the hidden surface algorithms employee image space approach except____.
A. Back face removal
B. Scan line method
C. Depth buffer method
D. Depth sort method

249. ____are the two types of projections give a pictorial view of the object without convergence.
A. Orthographic and perspective
B. Perspective and oblique
C. Oblique and axonometric
D. Isometric and orthographic

250. The name of a visible surface detection algorithm is _____.
A. Back face detection
B. Ray tracing
C. Back face removal
D. Area tracing

251. What is ZUI in computer Graphics?
A. A Widget
B. Logical Enhancement of GUI
C. An application that saves memory
D. None of above

252. In Bresenham's algorithm, while generating a circle, it is easy to generate?
A. One octant first and other by successive reflection
B. One octant first and other by successive rotation
C. One octant first and other by successive translation
D. All octants

253. Why a circle drawn on the screen appears to be elliptical?
A. It is due to the aspect ratio of monitor
B. Screen has rectangular shape
C. Our eyes are not at the same level on screen
D. CRT is completely spherical

254. In Bresenhan's algorithm error term is initialized to?
A. 0 B. 1
C. -1/2 D. None of above

255. Which of the following technique is used in Midpoint Subdivision algorithm?
A. Linear search B. Heap sort
C. Binary search D. Bubble sort

256. Which of the following clipping algorithm follows the Divide and Conquer strategy?
A. 4-bit algorithm
B. Cyrus break algorithm
C. Midpoint algorithm
D. Cohen- Sutherland algorithm

257. A line with endpoints codes as 0000 and 0100 is?
A. Partially invisible
B. Completely invisible
C. Completely visible
D. Trivially invisible

258. Choose the correct statement?
A. Random scan monitors draw a picture one line at a time
B. The components line of a random scan picture must be refreshed in a particular order
C. Raster scan monitors draw a picture one line at a time
D. Random scan method is well suited for displaying shading and color areas

259. Hue of color is related to?
A. Luminance B. Incandescence
C. Saturation D. Wavelength

260. The phenomenon of having a continuous glow of a beam on the screen even after it is removed is called as?
A. Fluorescence
B. Phosphorescence
C. Persistence
D. Incandescence

261. The line 2x-y+4=0, if clipped against this window will connect the points?
A. (0, 1) and (3, 3)
B. (1, 2) and (4, 2)
C. (0, 1) and (2, 3)
D. None of above

262. Reflection of a point about x-axis, followed by a counter-clockwise rotation of 90^0, is equivalent to reflection about the line?
A. $x = -y$ B. $y = -x$
C. $x = y$ D. $x + y = 1$

263. The best hidden surface removal method used for complex scenes with more than a few thousand surfaces is?
A. Depth sorting method
B. Octree method
C. Depth buffer algorithm
D. Both B and C

264. The point at which a set of projected parallel lines appear to coverage is called as a?
A. Convergence point
B. Point of illusion
C. Vanishing point
D. Point of delusion

265. The basic element of a picture in volume graphics is?
A. Pixel B. Volsel
C. Voxel D. None of above

266. Let R be the radius of a circle. The angle subtended by an arc of length R at the center of the circle is?
A. 1 degree
B. 45 degree
C. 1 radian
D. Impossible to determine

267. A bilinear transformation can be simulated by the transformation?
A. Transformation, rotation and stretching
B. Translation and rotation
C. Rotation, stretching and inversion
D. Rotation, stretching, inversion and translation

268. A circle, if scaled only in one direction becomes a?
A. Parabola
B. Ellipse
C. Hyperbola
D. Remains a circle

269. When several types of output devices are available in graphics installation. it is convenient to use?
A. Bundled attributes
B. Inquiry attributes
C. Unbundles attributes
D. All of above

270. $x = at^2$; $y = 2at$ is the parametric equation of ?
A. Circle
B. Parabola
C. Rectangular hyperbola
D. Ellipse

271. In displaying a clipped picture the efficient method is?
A. Clipping against the window and then applying the window transformation
B. Applying window transformation and then clipping against the viewport
C. Both A and B have the same efficiency
D. Efficiency depends on whether the window is an aligned rectangle or not

272. The anti – aliasing technique which allows shift of 1/4, 1/2 and 3/4 of a pixel diameter enabling a closer path of a line is?

A. Pixel phasing
B. Intensity compensation
C. Filtering
D. Sampling technique

273. All the hidden surface algorithms employee image space approach except?

A. Back face removal
B. Scan line method
C. Depth buffer method
D. Depth sort method

274. The major components of CRT are?

A. Electronic Gun
B. Control electrodes
C. Phosphorous coated screen
D. All of the above

275. ..... Used to regulate the flow of elections in CRT?

A. Electronic Gun
B. Control electrode
C. Focusing electrode
D. All of the above

276. The glow given off by the, phosphor during exposure of the electron beam is known as?

A. Fluorescence
B. Persistence
C. Phosphorescence
D. All of the above

277. Raster is a synonym for the term?

A. Array B. Matrix
C. Model D. All of above

278. The ..... simply reads each successive byte of data from the frame buffer?

A. Digital Controller
B. Display Controller
C. Data Controller
D. All of above

279. Reflection of a point about x-axis, followed by a counter-clockwise rotation of 900, is equivalent to reflection about the line?

A. $x = -y$ B. $y = -x$
C. $x = y$ D. $x + y = 1$

280. In the raster scan method for transformation, a 90^0 rotation can be performed by?

A. Reversing the order of bits within each row in the frame buffer
B. By performing XOR on the frame buffer location
C. By coping each row of the block into a column in the new frame buffer location
D. None of above

281. Which of the following is an odd function?

A. $f(x) = x^2 - |x|$
B. $f(x) = (x)(a^x + 1) / (a^x - 1)$
C. $f(x) = \sin(x) + \cos(x)$
D. None of these

282. Oblique projection with an angle of 45^0 to the horizontal plane is called as?

A. Cabinet projection
B. Cavalier projection
C. Isometric projection
D. None of these

283. The people of the planet Mars designed a scale for measuring the temperature, in which water freezes at 100 units and boils at 250 units. The people of Jupiter designed a scale in which water freezes at 75 units and boils at 300 units. A temperature of 200 units in Mars will measure ..... in Jupiter ?

A. 300 B. 225
C. 250 D. 175

284. (2, 4) is a point on a circle that has center at the origin. Which of the following points are also on circle?

A. (2,-4)
B. (4,-2)
C. (-4, 2)
D. All of above

285. A cube of side 1 unit is places 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 (0, 1, 0) is?

A. (0,0,0)
B. (1,1,0)
C. (0,1,1)
D. (0,1,1)

286. Which of the following statement is true?

A. Request, sample and event are the three 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 menu-driven user interface to an application

287. Choose the incorrect 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 transformation are not supplied to the scene prior to rendering
C. This technique removes hidden surfaces.
D. In this technique rays are cast from the light source to the object in the scene

288. Aspect ratio is generally defined as the ratio of the?

A. Vertical to horizontal points
B. Horizontal to vertical points
C. Vertical to (horizontal + vertical) points
D. Either A or B, depending on the convention followed

289. The ISO standard for computer Graphics is?

A. Graphics Kernel System
B. Computer graphics standard
C. Graphics Standard System
D. None of above.

290. Examples of Presentation Graphics are?

A. Bar Charts B. CAD
C. Line Graphs D. A and C

291. The technique used to summarize the financial, statistical, mathematical, scientific and economic data is?

A. Computer Art
B. Presentation Graphics
C. Image processing
D. None of above

292. **Computer generated models of physical, financial and economic systems are often used for?**
A. Entertainment
B. Educational Aid
C. Quality Control
D. None of above

293. **Special System designed for some training application are known as?**
A. GUI
B. Video Display Devices
C. Simulators
D. None of above

294. **Computer Graphics models are now commonly used for making?**
A. Motion pictures
B. Television shows
C. Music Videos
D. All of above

295. **Graphics and image processing technique used to produce a transformation of one object into another is called?**
A. Animation B. Half toning
C. Morphine D. None of above

296. **The amount of light emitted by the phosphor coating depends on the?**
A. Number of electrons striking the screen
B. Speed of electrons striking the screen
C. Distance from the cathode to the screen
D. None of above

297. **The maximum number of points that can be displayed without overlap on a CRT is referred to as?**
A. Resolution B. Attenuation
C. Persistence D. None of above

298. **Gray scale is used in?**
A. Monitor that have color capability
B. Monitor that have no color capability
C. Random scan display
D. None of above

299. **Assuming that one allows 256 depth value levels to be used how much memory a 512 x 512 pixel display would require to store the z-buffer**
A. 512 k
B. 256 k
C. 1024 k
D. 128 k

300. **Computer graphics was first used by**
A. William fetter in 1960
B. James fetter in 1969
C. James gosling in 199
D. John Taylor in 1980

301. **Constant intensity shading is called...**
A. Flat shading
B. Narrow shading
C. Fast shading
D. None of the above

302. **Give an example for absolute locator device**
A. Mouse
B. Touch panel
C. Light pen
D. None of the above

303. **Identify an relative locator device from the following**
A. Mouse B. Touch panel
C. Light pen D. Keyboard

304. **Identify the string device from the following:**
A. Mouse B. Webcam
C. Keyboard D. Joystick

305. **Phong Shading is also called....**
A. Flat shading
B. Normal vector interpolation shading
C. Constant intensity shading
D. None of the above

306. **Gouraud shading is also known as:**
A. Flat shading method
B. Intensity interpolation method
C. Normal vector interpolation method
D. Constant intensity shading method

307. **Which one of the following calculations is/ are performed on the Gouraud Shading?**
A. Determining the average unit normal vector at each polygon vertex\
B. Apply an illumination model to each vertex to calculate the vertex intensity
C. Linearly interpolate the vertex intensities
D. All of the above

308. **The phenomenon of having a continuous glow of a beam on the screen even after it is removed is called as**
A. Fluorescence
B. Phosphorescence
C. Persistence
D. Incandescence

309. **The best hidden surface removal methodes) used for complex scenes with more than a few thousand surfaces is/are**
A. Depth sorting method
B. Octree method
C. Scan line algorithm
D. Both (A) & (B)

310. **The anti-aliasing technique which allows shift of 114, 112 and 3/4 of a pixel diameter enabling a closer path of a line is**
A. Pixel phasing
B. Intensity compensation
C. Filtering
D. Sampling technique

ANSWER SHEET

1.A	2.C	3.B	4.C	5.B	6.B	7.A	8.C	9.C	10.B
11.A	12.A	13.C	14.A	15.A	16.B	17.C	18.B	19.D	20.D
21.A	22.A	23.B	24.A	25.C	26.B	27.D	28.B	29.B	30.A
31.B	32.D	33.A	34.A	35.D	36.C	37.B	38.B	39.A	40.A
41.B	42.C	43.A	44.C	45.B	46.A	47.C	48.D	49.B	50.B
51.C	52.D	53.B	54.A	55.A	56.A	57.A	58.C	59.D	60.A
61.D	62.C	63.A	64.C	65.C	66.D	67.C	68.A	69.A	70.C

71.B	72.D	73.C	74.A	75.C	76.D	77.D	78.D	79.C	80.B
81.D	82.C	83.B	84.C	85.C	86.D	87.C	88.C	89.D	90.A
91.A	92.A	93.A	94.B	95.B	96.C	97.B	98.C	99.D	100.B
101.C	102.A	103.A	104.C	105.C	106.D	107.C	108.C	109.A	110.A
111.A	112.B	113.B	114.D	115.C	116.D	117.A	118.A	119.B	120.B
121.C	122.A	123.D	124.C	125.B	126.A	127.C	128.B	129.C	130.A
131.C	132.C	133.D	134.B	135.A	136.A	137.B	138.A	139.A	140.B
141.D	142.D	143.B	144.B	145.B	146.A	147.A	148.A	149.A	150.A
151.C	152.A	153.C	154.C	155.B	156.D	157.C	158.D	159.D	160.A
161.C	162.A	163.B	164.B	165.B	166.B	167.C	168.D	169.A	170.B
171.A	172.C	173.A	174.B	175.D	176.A	177.B	178.D	179.D	180.A
181.B	182.B	183.B	184.B	185.D	186.A	187.D	188.A	189.B	190.C
191.A	192.C	193.A	194.B	195.B	196.B	197.C	198.C	199.D	200.D
201.A	202.B	203.C	204.D	205.B	206.C	207.A	208.C	209.B	210.C
211.A	212.D	213.C	214.A	215.B	216.D	217.D	218.C	219.C	220.A
221.B	222.A	223.D	224.C	225.A	226.C	227.B	228.A	229.C	230.A
231.A	232.B	233.A	234.C	235.C	236.B	237.D	238.A	239.C	240.A
241.B	242.B	243.A	244.C	245.D	246.D	247.A	248.A	249.C	250.A
251.A	252.A	253.A	254.A	255.C	256.C	257.A	258.A	259.D	260.B
261.D	262.C	263.D	264.C	265.C	266.C	267.D	268.B	269.A	270.B
271.D	272.A	273.A	274.D	275.B	276.A	277.B	278.B	279.C	280.C
281.D	282.B	283.B	284.D	285.D	286.A	287.D	288.D	289.A	290.D
291.B	292.B	293.A	294.D	295.A	296.A	297.A	298.B	299.A	300.A
301.A	302.B	303.D	304.C	305.B	306.B	307.D	308.B	309.D	310.A

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