

1. The term that is used for geometric modelling like solid modelling, wire frame modelling and drafting is known as
 - a. **Software package**
 - b. Operating software
 - c. Application software
 - d. Programming software
2. In a CNC machining operation, the tool has to be moved from point (5, 4) to point (7, 2) along a circular path with center at (7, 2). Before starting operation, the tool is at (5, 4). The correct G and M code for this motion is
 - a. G03 X7.0 Y2.0 I.5.0 J2.0
 - b. **G02 X7.0 Y2.0 I.5.0 J2.0**
 - c. G01 X7.0 Y2.0 I.5.0 J2.0
 - d. G00 X7.0 Y2.0 I.5.0 J2.0
3. In the following geometric modeling is not three dimensional geometric modeling
 - a. Solid modeling
 - b. Wire frame modeling
 - c. **Drafting**
 - d. Surface modeling
4. The disadvantage of Numerical Control is
 - a. The computer is not reliable
 - b. **Tape and tape readers are not reliable**
 - c. One operator needed for each machine
 - d. The machine tool can easily overheat
5. In the following three-dimensional modeling technique, do not require much memory of computer
 - a. Solid modeling
 - b. Surface modeling
 - c. Solid and surface modeling
 - d. **Wire frame modeling**
6. In the following geometric primitives, which is not solid entity of CGS modeling
 - a. Cone
 - b. Cylinder
 - c. Box
 - d. **Circle**
7. CAM is
 - a. Computer Aided Making
 - b. Computer Added Marketing
 - c. **Computer Aided Manufacturing**
 - d. Computer Added Manufacturing
8. Scaling objects can make them
 - a. Larger
 - b. Smaller
 - c. **Larger and smaller both**
 - d. Starch only
9. Graphic User interface is full of GUI
 - a. **True**

- b. False
 - c. Don't tell
 - d. Don't know
10. The axis of Turning machines are
- a. X and Y axes
 - b. Y and Z axes
 - c. X and Z axes
 - d. X, Y and Z axes
11. Several machine tools can be controlled by
- a. NC
 - b. CNC
 - c. DNC
 - d. CCNC
12. Which one of the following does not belong to family of conic?
- a. Parabola
 - b. Hyperbola
 - c. Line
 - d. Ellipse
13. Which of the following is not the correct statement?
- a. Chamfer command is used to bevel the edge
 - b. Fillet command used to round the corners
 - c. Array command is used to make multiple copies
 - d. Scale command is used to draw plane scale
14. The method of solid modeling that defines the topology of face, edge and vertices, as well as the data that defines the surface in which each face lies is called
- a. Constructive Solid Geometry
 - b. Layering
 - c. Boundary Representation
 - d. Isometric
15. The degree of Bezier curve is with N control points is
- a. N
 - b. N+1
 - c. 2N
 - d. N-1
16. Which of the following is not a Analytical entity?
- a. Line
 - b. Spline
 - c. Circle
 - d. Parabola
17. Control loop unit MCU is always
- a. Hardware unit
 - b. Software unit
 - c. Application unit
 - d. Control unit

18. The software that provides users with various functions to perform geometric modeling and construction. Editing and manipulation of existing geometry, drafting and documentation is known as
- Application software
 - Operating system
 - Programming language
 - Graphic software**
19. What kind of control system found in CNC machine tool?
- Personal computer
 - Hardware logic
 - Programmable logic control**
 - Microprocessor based
20. The degree of B-Spline with varying knot vectors
- Increase with knot increase**
 - Decrease with knot increase
 - Does not change
 - Not depends on knot
21. An ATC plays a sufficient role in reducing
- Tool changing time**
 - Idle time
 - Control time
 - Setup time
22. In Computer – Aided – Manufacturing system, the elements of CIM systems are
- Automated
 - Optimized
 - Integrated**
 - Discretized
23. Which of the following technology is used only for material handling, not actual production or assembly
- Robots
 - CNC
 - NC
 - AGV's
24. CIM includes manufacturing system that have
- Computer Aided Design, automated flexible manufacturing system, inventory control, warehousing and shipping controls**
 - Transaction processing, management information system and decision support system
 - Automated guided vehicles, robotics and process control
 - Robots, automated guided vehicles and transfer equipment
25. In Computer Aided Manufacturing, the elements of CIM are
- Automated
 - Optimized
 - Integrated**
 - Discretized
26. Which of the following is the least important design during rapid prototyping?

- a. Machine size
 - b. Tolerance**
 - c. Material
 - d. CAD software
27. In STL files when cord length decreases then accuracy
- a. Increase**
 - b. Decrease
 - c. May increase and may decrease
 - d. Remains constant
28. How many homogeneous representations are possible for any point P(x,y)?
- a. 0
 - b. 1
 - c. 2
 - d. Infinity
29. If we have applied scaling by 2 units in both directions and received final coordinates of the polygon, then to recover the original coordinates of the polygon we have to apply scaling transformation with
- a. $S_x = \frac{1}{2}$ and $s_y = \frac{1}{2}$**
 - b. $S_x = 2$ and $s_y = 1/2$
 - c. $S_x = 1/2$ and $s_y = 2$
 - d. $S_x = 2$ $s_y = 2$
30. A point P(2,3) is represented in homogeneous coordinates as
- a. (2,3,0)
 - b. (2,3,4)
 - c. (2,3,1)**
 - d. (4,6,3)
31. After performing X- shear on triangle having P(2,1) Q(4,3) R(2,3) with the constant value as 2 the resultant triangle will be
- a. P(2,5) Q(4,1) R(2,7)
 - b. P(10,3) Q(4,5) R(4,1)
 - c. P(4,1) Q(10,3) R(4,3)**
 - d. P(5,2) Q(4,11) R(7,2)
32. In a CAD package, mirror image of 2D point(5,10) is to be obtained about a line which passes through a origin and makes an angle 45 degree CCW with X- axis. The coordinates of transformed point will be
- a. (7.5,5)**
 - b. (10,5)
 - c. (7.5,-5)
 - d. (10,-5)
33. Circular arc on a part profile is being machined on a vertical milling machine. The CNC part program using metric unit with absolute dimensions is listed below:
- ```

N20 G01 X30 Y55 Z-5 F50
N30 G02 X50 Y35 R20
N35 G01 Z5

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The coordinate system of the centers of the circular arcs are

- a. (30,55)
- b. (50,55)
- c. (50,35)
- d. (30,35)