

CAE Assessment- 4th Marking Period

Computer Aided Engineering

* Required

1. Email address *

2. Name *

3. Email *

4. Period *

Questions

5. A polysolid is ____.*

Mark only one oval.

- ☐ useful for creating walls
- ☐ simply a line created as a solid object by applying surfaces
- ☐ created by converting self-intersecting 2D objects
- ☐ All of the above.

6. Which of the following are valid angles of revolution for the REVOLVE command? *

Mark only one oval.

- ☐ 180°
- ☐ -180°
- ☐ 360°
- ☐ All of the above.

7. Which of the following scale factors should always be used when inserting a 3-D geometry to 3D space? N *

Mark only one oval.

- ☐ 1:1
- ☐ 1:2
- ☐ 2:1
- ☐ 2:3

8. Which of the following axes are used when inserting a 3D object into a drawing? *

Mark only one oval.

- ☐ Z axis only
- ☐ X and Y axes only
- ☐ Y and Z axes only
- ☐ X, Y, and Z axes

9. Solids, surfaces, and _____ are 3-D objects. *

Mark only one oval.

- ☐ boolean operations
- ☐ mass properties
- ☐ lithographic printing
- ☐ wireframes

10. The three traditional views shown in a 2 dimensional multiview drawings are Front, Top, and _____. *

Mark only one oval.

- ☐ Isometric
- ☐ Right Side
- ☐ Auxiliary
- ☐ Left side

11. Which of the following describes the usefulness of the isometric method? *

Mark only one oval.

- ☐ Creates separate views of an image
- ☐ Generates a 2D multiview drawing
- ☐ Represents 3D drawings in 2D
- ☐ Represents 3D drags exact to scale.

12. Which of the line below represents a section line (hatch)? *

A _____ (THIN)

B _____ (THICK)

C _____ (THIN)

D _____ (THIN)

Mark only one oval.

☐ A

☐ B

☐ C

☐ D

13. Which of the line below represents a Cutting Plane ? *

A _____ (THICK)

B _____ (THICK)

C _____ (THIN)

Mark only one oval.

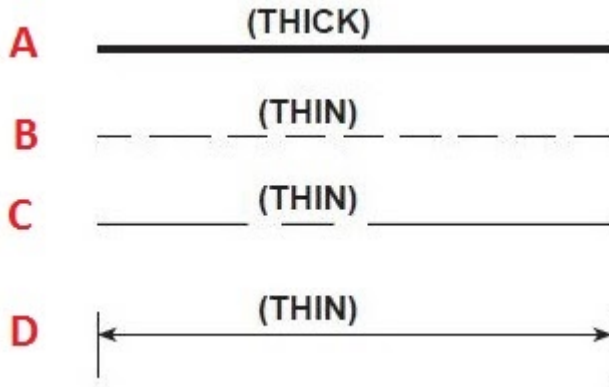
☐ A

☐ B

☐ C

☐ A and B

14. Which of the line below represents an Object Line? *



Mark only one oval.

- ☐ A
- ☐ B
- ☐ C
- ☐ D

15. What is a sweep? *

Mark only one oval.

- ☐ An object created by extruding between two or more 2D profiles.
- ☐ A combination of open and closed shapes.
- ☐ An object created by extruding a single 2D profile along a path object.
- ☐ A special type of Boolean operation.

16. What is a loft? *

Mark only one oval.

- ☐ An object created by extruding between two or more 2D profiles.
- ☐ A combination of open and closed shapes.
- ☐ An object created by extruding a single 2D profile along a path object.
- ☐ A special type of Boolean operation.

17. Which of the following objects can be converted into a region? *

Mark only one oval.

- ☐ Circle, rectangle, and line.
- ☐ Open Rectangle, ellipse, and open polyline.
- ☐ Circle, rectangle, and closed polyline.
- ☐ Any open, 3D polyline.

18. A solid sphere can be created either round or elliptical. *

Mark only one oval.

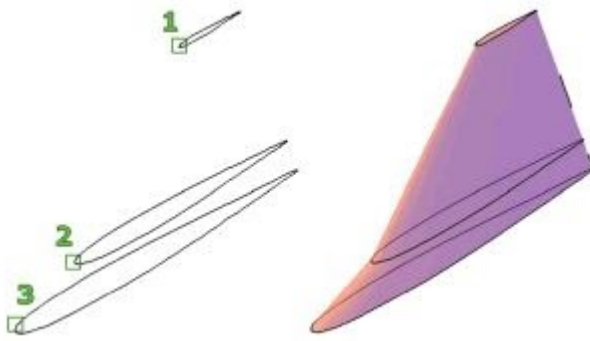
- ☐ True
- ☐ False

19. When using the REVOLVE command, _____ shapes can be revolved into solids or surfaces. *

Mark only one oval.

- ☐ open
- ☐ closed
- ☐ fragmented
- ☐ None of the above

20. The image below is an example of using the *



Mark only one oval.

- ☐ PRESSPULL Command
- ☐ ELEVATION Command
- ☐ LOFT Command
- ☐ EXTRUDE Command

21. Model space viewports must be rectangular, but can overlap *

Mark only one oval.

- ☐ True
- ☐ False

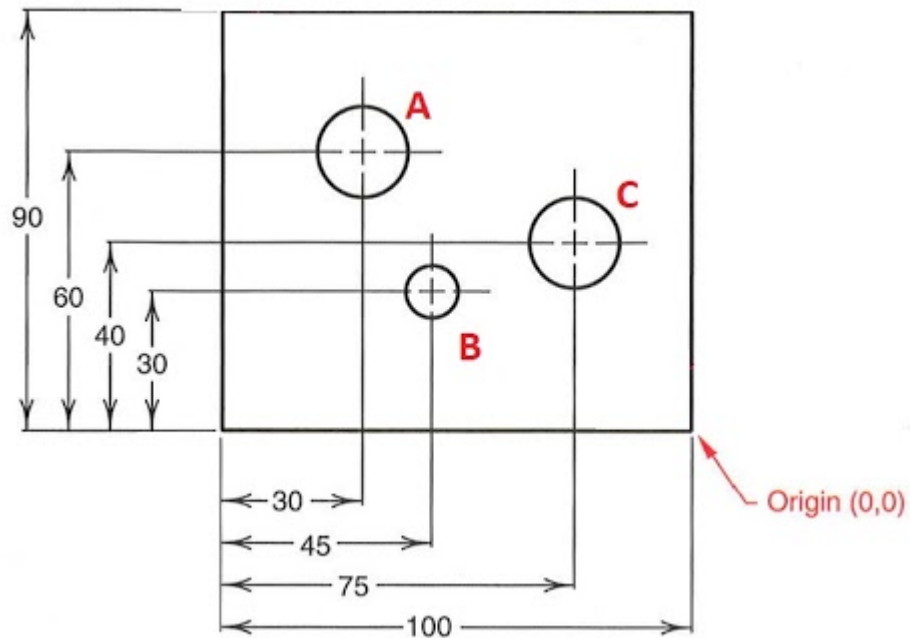
22. What does this symbol represent? *



Mark only one oval.

- ☐ Composite Line
- ☐ CAD Linear
- ☐ Center Line
- ☐ None of the above

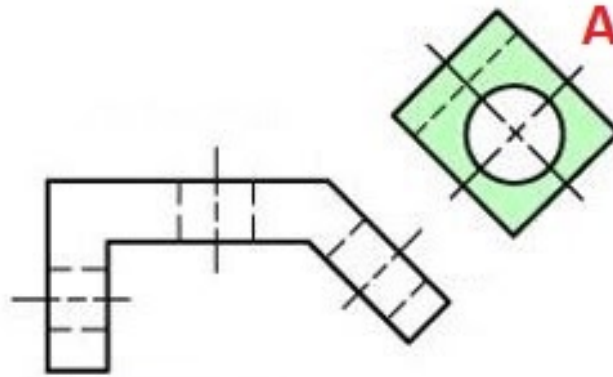
23. The absolute coordinate of hole "A" are _____.*



Mark only one oval.

- ☐ X= -70 ; Y= 60
- ☐ X= 70 ; Y= -60
- ☐ X= -60 ; Y= 70
- ☐ X= -90 ; Y= 70

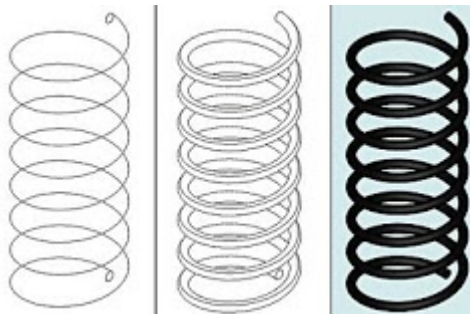
24. In the figure below, view "A" is a/an _____ view. *



Mark only one oval.

- ☐ oblique
- ☐ resolved
- ☐ auxiliary
- ☐ aligned

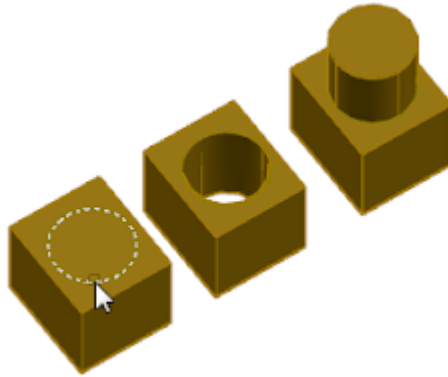
25. The image below is an example of using the *



Mark only one oval.

- ☐ POLYSOLID Command
- ☐ HELIX Command
- ☐ LOFT Command
- ☐ THICKEN Command

26. The image below is an example of using the *



Mark only one oval.

- ☐ SUBTRACT Command
- ☐ PRESSPULL Command
- ☐ ADDON Command
- ☐ None of the above
- ☐ Other: _____

27. Extruding four separate lines segments *

Mark only one oval.

- ☐ will create a box made of six surfaces
- ☐ is the same as using the LOFT command
- ☐ will create a SOLID primitive
- ☐ will create four separate surfaces

28. The SWEEP and LOFT commands can be used to create complex solid models. *

Mark only one oval.

- ☐ True
- ☐ False

29. The Press-Pull tool will _____ the face of a solid model in the direction it faces. *

Mark only one oval.

- ☐ taper
- ☐ extrude
- ☐ union
- ☐ none of the above

30. The Conceptual Visual Style tool is located on the _____ toolbar. *

Mark only one oval.

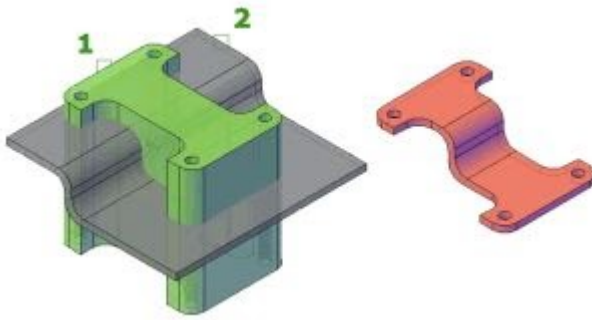
- ☐ Modify
- ☐ Visual Styles
- ☐ 3-D Modeling
- ☐ All of the above

31. The SUBTRACT command *

Mark only one oval.

- ☐ creates a composite solid by removing the material common to the selected set of solids.
- ☐ create a composite solid by removing the material common to the selected set of regions.
- ☐ On invoking this command, you will be prompted to select the set of solids or regions to subtract from.
- ☐ All of the above

32. The image below is an example of using the *



Mark only one oval.

- ☐ SUBTRACT Command
- ☐ 3DCOPY Command
- ☐ INTERSECT Command
- ☐ EXTRUDE Command

33. The 3DFACE command *

Mark only one oval.

- ☐ Creates a three-sided surface in 3D space.
- ☐ Creates a four-sided surface in 3D space.
- ☐ Both answers are correct
- ☐ Neither of the answers are correct

34. A REGION *

Mark only one oval.

- ☐ is a 2D enclosed area with physical properties such as centroids or centers of mass.
- ☐ is a 2D area that you create from closed planar loops of objects.
- ☐ will delete the original object after converting them to regions.
- ☐ can be combined with other regions by using union, subtract, or intersect operations.
- ☐ All of the above

35. The INTERSECT command *

Mark only one oval.

- ☐ creates a composite solid or region by retaining the material common to the selected set of solids or regions.
- ☐ creates a composite solid by removing the material common to the selected set of regions.
- ☐ creates an extrusion along a specified path
- ☐ All of the above

36. A rendering can be an effective tool because *

Mark only one oval.

- ☐ it makes it easier to visualize the shape and size of a 3D object.
- ☐ makes it easier to express your design ideas to other people.
- ☐ it is a very effective tool for communicating ideas and explain your design more clearly.
- ☐ the user has complete control over the shape, size, color, and surface material.
- ☐ All of the above

37. The material libraries contain thousands of materials by *

Mark only one oval.

- ☐ using the Material Browser.
- ☐ visiting the local library
- ☐ ordering Material Samples online
- ☐ None of the above

38. What is the main purpose of an assembly drawing? *

Mark only one oval.

- ☐ It describes the parts in 3D.
- ☐ It describes the shape of the parts.
- ☐ It shows the parts as they fit together.
- ☐ It shows the type of the materials.

39. The three types of Boolean operations are ____.

Mark only one oval.

- ☐ subtraction, addition, and multiplication
- ☐ subtraction, addition, and intersection
- ☐ subtraction, union, and intersection
- ☐ subtraction, union, and multiplication

40. A helix ____.*

Mark only one oval.

- ☐ is a line in the form of a spiral
- ☐ can be created as a 2D or 3D object
- ☐ is a solid
- ☐ D. All of the above

41. There are two types of viewports in AutoCAD. Viewports in model space are called ____ viewports.*

Mark only one oval.

- ☐ floating
- ☐ freeform
- ☐ aligned
- ☐ tiled

42. The BOX command creates surface boxes with unequal-length sides and cubes.*

Mark only one oval.

- ☐ True
- ☐ False

43. You can select and assign materials to 3D objects individually or by Layer.*

Mark only one oval.

- ☐ True
- ☐ False

44. The material libraries in Auto CAD cannot be modified. You cannot create custom libraries for specific projects. *

Mark only one oval.

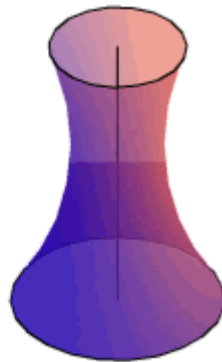
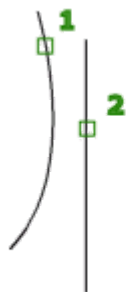
- ☐ True
- ☐ False

45. Which correct statement (s) about lighting is (are) correct? *

Mark only one oval.

- ☐ Lighting should be turned off for rendering a realistic image of an object.
- ☐ Without proper lighting, a rendered image may not show the features the way you expect.
- ☐ It is better to turn the lights off in the classroom so the glare does not bother your eyes.

46. To create the 3D drawing below, you would first draw a profile and then use the _____ command. *



Mark only one oval.

- ☐ Revolve
- ☐ Extrude
- ☐ Loft
- ☐ Presspull

47. With the INTERSECT command, *

Mark only one oval.

- ☐ you can create a 3D solid from the common volume of two or more existing 3D solids, surfaces, or regions.
- ☐ If you select a mesh, you can convert it to a solid or surface before completing the operation.
- ☐ You can extrude 2D profiles and then intersect them to create a complex model efficiently.
- ☐ All of the above

48. In order to draw threads on a bolt, you must know the following: *

Check all that apply.

- ☐ the Major DIA (D): The largest diameter.
- ☐ the Minor DIA (d): The smallest diameter.
- ☐ the Pitch DIA (d P): The diameter at which a line cuts the spaces and threads equally.
- ☐ All of the above.

49. What statement (s) is (are) true about section views? *

Mark only one oval.

- ☐ Making the cut and drawing the view in the proper location is critical.
- ☐ It is very important to visualize what the part will look like after it is cut open.
- ☐ A section view is a view used on a drawing to show an area or hidden part of an object by cutting away or removing some of that object.
- ☐ All of the above

50. The UCS X, Y, and Z coordinates of any point are measured with respect to the fixed origin (0,0,0). It is fixed and cannot be moved. *

Mark only one oval.

- ☐ True
- ☐ False

51. Which command is used to create an elliptical cylinder? *

Mark only one oval.

- ☐ ELLIPSE
- ☐ ELCYL
- ☐ CYLINDER
- ☐ None of the above

52. To join two model space viewports into a single viewport, they must be adjacent and form a(n) _____ when joined. *

Mark only one oval.

- ☐ Rectangle
- ☐ Extrusion
- ☐ Helix
- ☐ LOFT

53. When using the REVOLVE command, _____ shapes can be revolved into solids or surfaces. *

Mark only one oval.

- ☐ Open
- ☐ Mesh
- ☐ Closed
- ☐ extruded

54. To create a sweep that tapers from the beginning of the path to the end, the _____ option of the SWEEP command is used. *

Mark only one oval.

- ☐ Scale
- ☐ Reduce
- ☐ Diminish
- ☐ None of the above

55. The MASSPROP shortcut will provide the following information. *

Mark only one oval.

- ☐ mass
- ☐ volume
- ☐ bounding box
- ☐ all of the above

