



School of General Education
Session: 2021-22 (Summer Semester)
B. Voc. Program, 3rd Semester,
1st In-Sem. Examination

Course Code: GEN1308

Time: 2 Hours

Course Name: Basic of AutoCAD and SolidWorks

Max. Marks: 50

Instruction:

1. Answer all questions from section – A, each question carries one mark.
2. Attempt all questions from section – B, each question carries two marks.
3. Answer all questions from section – C, each question carries three marks.

Section – A

05X01 = 05 Marks

Q1. AutoCAD was developed by:

- a. Microsoft Inc.
- b. Apple Inc.
- c. Autodesk Inc.
- d. None of the above.

Q2. Which of the following workspaces are available in AutoCAD?

- a. 3D Basics.
- b. 3D Modeling.
- c. Drafting and Annotation.
- d. All of the above.

Q3. To obtain parallel lines, concentric circles and parallel curves _____ is used.

- a. Copy.
- b. Fillet.
- c. Offset.
- d. None of the above.

Q4. _____ key automatically activates the O snap feature of AutoCAD.

- a. F1.
- b. F2.
- c. F3.
- d. F4.



Q5. What does AutoCAD stand for?

- a. Automatical Computer Aided Design.
- b. Automated Computer Application Design.
- c. Automatic Computer Aided Data.
- d. None of the above.

Section – B

03X02 = 06 Marks

Q6. What is the purpose of AutoCAD Software?

Q7. Explain line command in detail with a suitable drawing.

Q8. What are grips, cross hairs & rubber band line?

Section – C

03X03 = 09 Marks

Q9. Explain the followings commands:

- a) Offset.
- b) Trim.
- c) Copy.
- d) Move.
- e) Extend.
- f) Mirror.

Q10. Explain the six-methods through which Circle can be created in AutoCAD?

Q11. List all the initial drawing settings requires to start the AutoCAD designing in 2D.

Vishin



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Section – A

05X01 = 05 Marks

Q1. AutoCAD was developed by:

Answer: c. Autodesk Inc.

Q2. Which of the following workspaces are available in AutoCAD?

Answer: d. All of the above.

Q3. To obtain parallel lines, concentric circles and parallel curves _____ is used.

Answer: c. Offset.

Q4. _____ key automatically activates the O snap feature of AutoCAD.

Answer: c. F3.

Q5. What does AutoCAD stand for?

Answer: b. Automated Computer Aided Design.

Section – B

03X02 = 06 Marks

Q6. What is the purpose of AutoCAD Software?

Answer:

- AutoCAD software provides the design and the shape for the products that needs to be created.
- It provides flexible and user friendly features with the tools to design the applications and document the workflows.
- This involves aggregate and import models for the formats and usually allows the design to get created without any change in source model.
- It provides tools to provide the formats by detailed designing the layouts and drawings using the views automatically.
- It also has the provision to create detailed design layouts and views can be drawn automatically using the source model.



Q7. Explain line command in detail with a suitable drawing.

Answer:

Command: Line

Alias: L (enter).

Use: To draw line to create objects. We draw line segment in between two points.

Process:

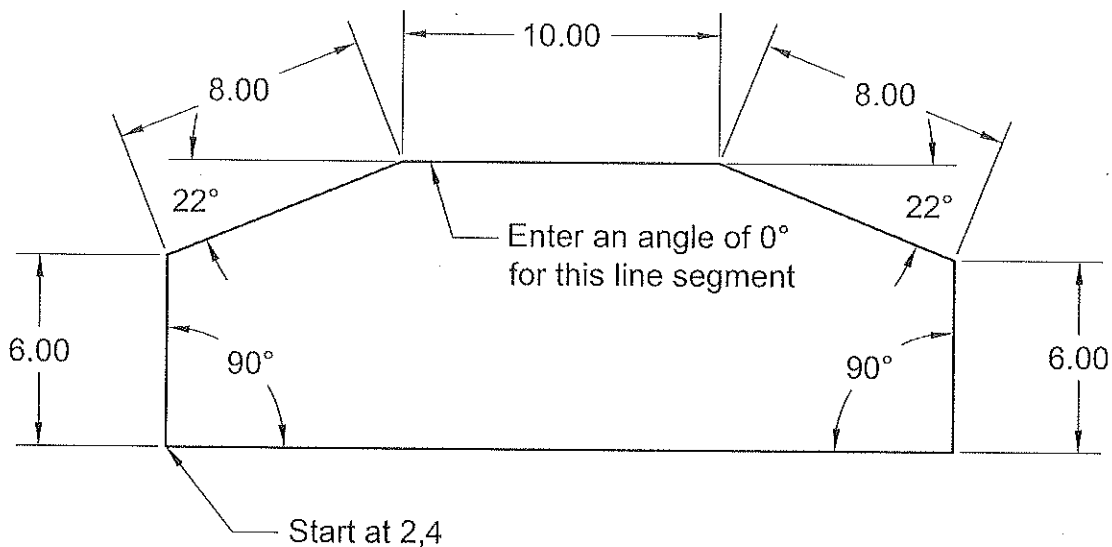
L (enter);

Specify first point: (pick P1);

Specify next point (Undo): (pick P2);

Specify next point (Undo): (pick P3);

Specify next point (Close/Undo): enter (to end)



Q8. What are grips, cross hairs & rubber band line?

Answer: Grips are small boxes that appear on the objects you select. You can move or edit an object by dragging a grip.

Cross hairs are the point from which any command starts to draw on the workspace.

Rubber band line is a free line which shows the direction and virtual line which starts from cross hair location point.

Section – C

03X03 = 09 Marks

Q9. Explain the followings commands:

- | | |
|------------|------------|
| a) Offset. | d) Move. |
| b) Trim. | e) Extend. |
| c) Copy. | f) Mirror. |

Answer:

- a) **Offset:** This command is used to create concentric circles, parallel lines & parallel curves.



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- b) **Trim:** This command is used to allow you to shorten an entity to an intersection or remove a section of an entity between two intersections. In order to trim an object, you must draw a second object which forms the "cutting edge". Cutting edges can be lines, x lines, rays, polyline, circles, arcs or ellipses. Blocks and text cannot be trimmed or used as cutting edge.
- c) **Copy:** This command can be used to create one or more duplicates of any drawing object or objects which you have previously created. Copy is a very useful and time-saving command because you can create very complex drawing elements & then simply copy them as many times as you like.
- d) **Move:** This command is used to displace object from one location to another location.
- e) **Extend:** This command can be used to extend a part of an object. In order to extend an object, you must draw a second object which forms the "boundary edge". Boundary edges can be lines, x lines, rays, polylines, circles, arcs or ellipses. Blocks & text cannot be extended or used as boundary edges.
- f) **Mirror:** This command is used to create mirrored copy of selected object.

Q10. Explain the six-methods through which Circle can be created in AutoCAD?

Answer:

1. Centre radius: Draws a circle based on a centre point and a radius.
2. Centre diameter: Draws a circle based on a centre point & a diameter.
3. 3 Point: Draw a circle based on three points on the circumference.
4. 2 Point: Draw a circle based on two endpoints of the diameter.
5. TTR (Tangent, Tangent, Radius): Draws a circle with a specified radius tangent to two objects.
6. TTT (Tan, Tan, Tan): Draws a circle tangent to three objects.

Q11. List all the initial drawing settings requires to start the AutoCAD designing in 2D.

Answer:

1. Cross hair & pick box sizing as per requirement from options dialogue box.
2. Unit Setting: UN (enter) -> Units dialogue box -> type, precision, insertion scale, etc.
3. Drawing settling: set page according to drawing size; Limits -> (0,0) enter -> top right limits enter -> Z enter -> A enter.
4. Turn On Toggle Keys: Ortho Mode (F8); OSNAP (F3); GRID (F7); Object Snap Tracking (F11).

