

THEORY 2 nd - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	B.Voc	Semester	3rd
Course name / Module	Basics of AutoCAD and Solid works		
Course code	GEN1308		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q1. What are the advantages of AutoCAD?

- Improve the quality of design
- Increase the productivity of designer
- Creates drawing with accuracy and quickly
- All of the above

Q2. Which command covert single object into discrete objects in lines ?

- Union
- Polyline
- Explode
- None of the above

Q3. AutoCAD was developed by :

- Microsoft corp.
- Autodesk corp.
- Apple Inc.
- None of the above

Q4. Origin of the AutoCAD drawing space is _____

- 0,0
- 1,0
- 0,1
- 1,1

Q5. Shortcut command for rectangle is

- a) R
- b) Re
- c) Rec
- d) Rect

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q6. What is the use of the OFFSET command?

Q7. Where you can use Tan Tan radius?

Q8. What is the meaning of the orthomode in Auto CAD?

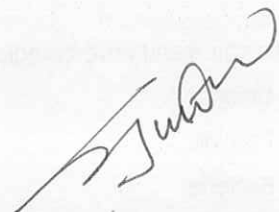
3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q9. Write applications of Auto CAD in automotive industry.

Q10. Write any six shortcut keys with their use for different modify commands you used in Auto CAD that saves your time.

Q11. Write steps to change the Dimension Style.



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INSTRUCTIONS
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Answer sheet

1. Section A (05 objective type questions, each question carries 01 mark)	05×1 = 05
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- b) Increase the productivity of designer
- c) Creates drawing with accuracy and quickly
- d) All of the above**

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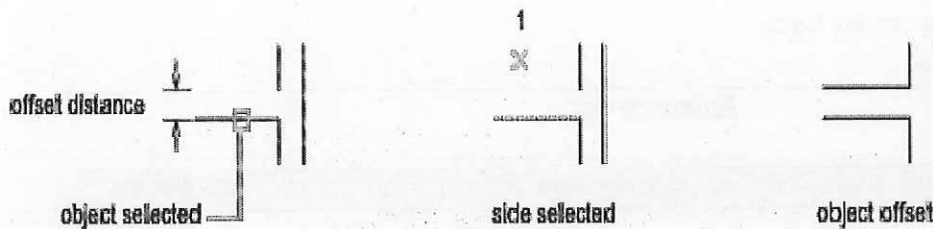
Q5. Shortcut command for rectangle is

- a) R
- b) Re
- c) **Rec**
- d) Rect

2. Section B (03 short answer type questions, each question carries 02 marks)	03×02 = 06
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Q6. What is the use of the OFFSET command?

Ans. Offset Distance
Creates an object at a specified distance from an existing object.



Exit

Exits the OFFSET command.

Multiple

Enters the Multiple offset mode, which repeats the offset operation using the current offset distance.

Q7. Where you can use Tan Tan radius?

Ans. You can use the Tangent, Tangent, Radius method to create a circle tangent to any two objects. Click to select each of the lines, and then press ENTER to accept the default radius value. Again, the program creates a circle of the desired radius tangent to the two objects you selected.

Q8. What is the meaning of the orthomode in Auto CAD?

Ans. The Ortho mode in AutoCAD is used to restrict cursor movement to specific directions. It allows the cursor movement only in the vertical and horizontal direction. When we create, modify, or move the drawings, the ORTHO mode is used to restrict the movement relative to the UCS (User Coordinate System).

3. Section C (03 long type questions, each question carries 03 marks)	03×03 = 09
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Q9. Write applications of Auto CAD in automotive industry.

Ans. Uses of CAD for the automotive industry include the process of creating, analyzing, modifying, optimizing and drafting product data, so as to achieve its design goal efficiently and effectively. We take input data for use of graphics product design, product model and drives the peripherals for product presentation.

CAD is extensively applied in automotive engineering processes and 3D designs. It offers a widespread working field for geometry creation as well as for the linkage of numerous simulation procedures, customer demands, and legislation tasks.

CAD designing and modeling are broadly segmented to passenger vehicle industry and commercial vehicle industry. In the passenger vehicle industry, it is further segmented to two/three wheeler and four wheelers.

Whereas the commercial vehicle industry is segmented into truck, van, bus, and trailer. We used CAD to create, modify, analyze, and optimize product design, to drive innovation, slash costs and get incredible new products.

Q10. Write any six shortcut keys with their use for different modify commands you used in Auto CAD that saves your time.

Ans.

- Rotate (RO+Enter)
- Copy (CO+Enter)
- Mirror (M+Enter)
- Stretch
- Scale (SC+Enter)
- Trim (TR+Enter)
- Extend (EX+Enter)
- Fillet (F+Enter)
- Chamfer (CHA+Enter)

Etc. (Write any six)

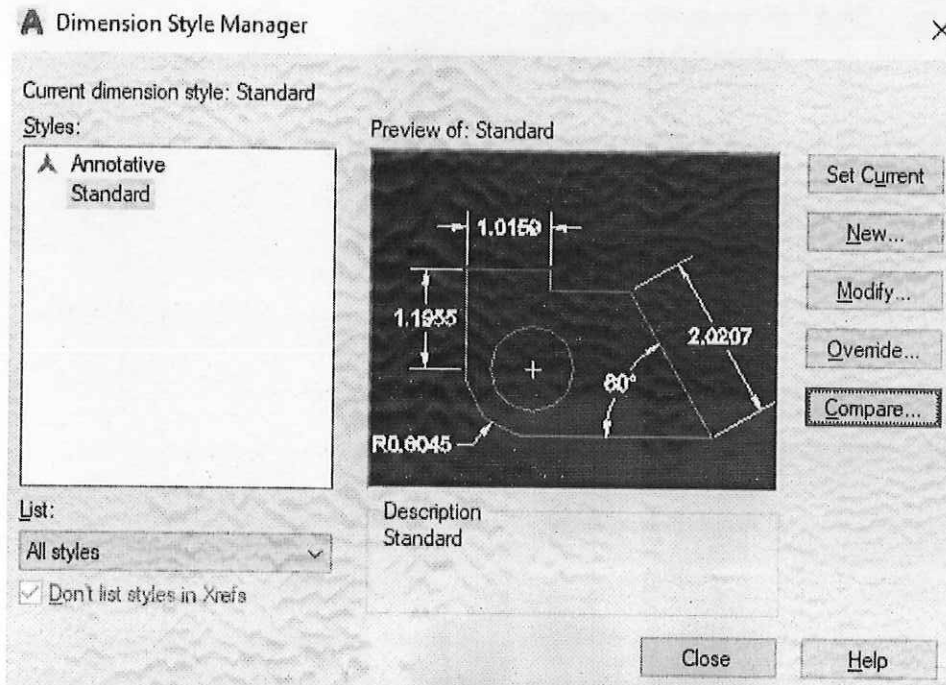
Q11. Write steps to change the Dimension Style.

Ans. It is used to create, modify, override, and compare the new styles and dimensions in AutoCAD. The **Standard** dimension style is considered as the default dimension style.

To open the Dimension Style Manager,

- o Type **D** or **DIMSTY** on the command line or command prompt and press **Enter**.

The dialog box will appear, as shown below:



The properties given on the right side of the Dimension Style Manager are listed below:

- o **Set Current**

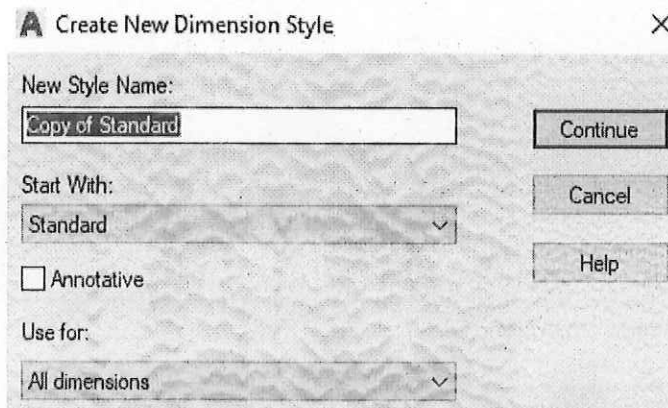
It applies the current style to the dimensions created by us. The selected style will be set as the current style.

- o **New**

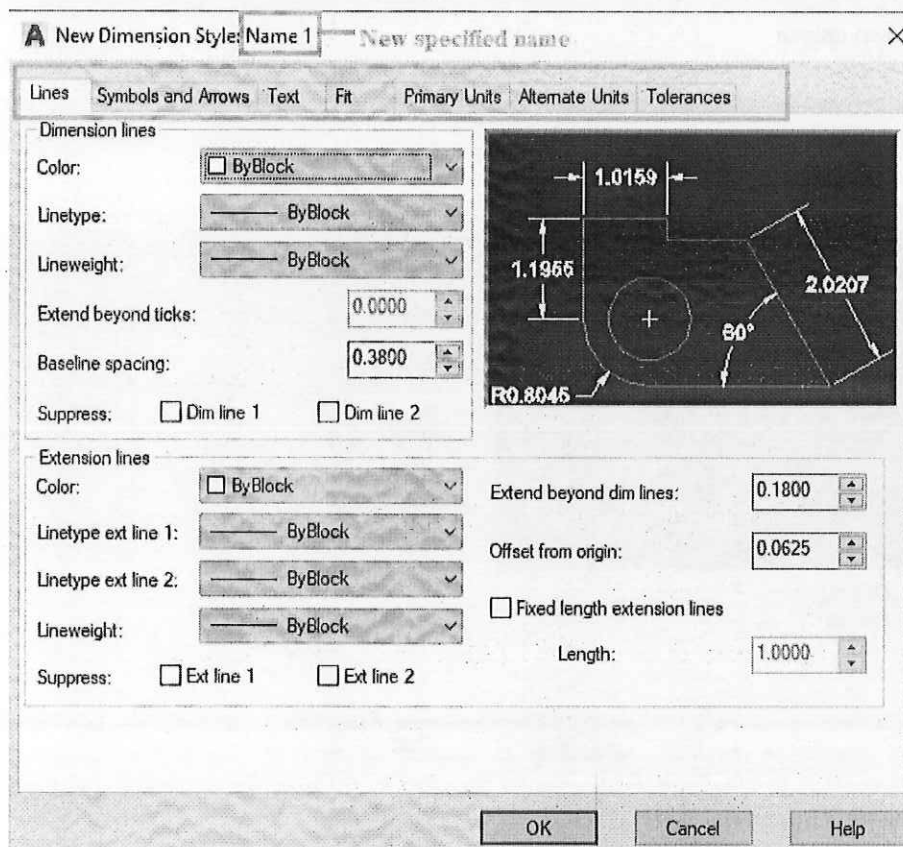
It is used to create a new dimension style. The steps to create a new dimension style are listed below:

1. Click on the 'New' button.

A dialog box will appear, which will look like the below image:



2. Specify the **New Style Name** and click on the **Continue** button. A dialog box will appear, as shown below:



The top row marked consists of the different characteristics of Dimensions. We can modify the values accordingly.

We need to click on the **OK** and **Close** to apply the dimensions on the drawing.

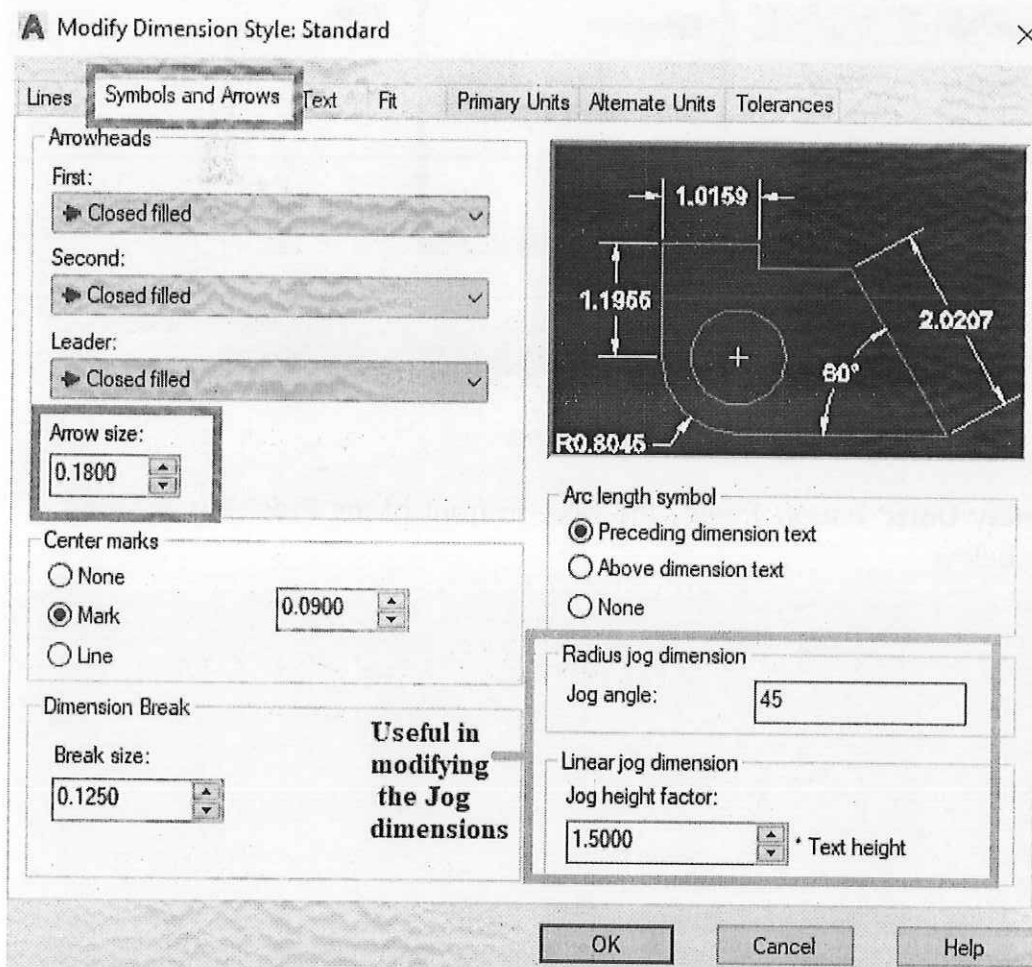
- o **Modify**

The **modify** option will open the modification dialog box, which is the same as the New Dimension Style dialog box.

Here, we can modify the different characteristics of dimensions, according to the requirements.

- o To modify the size of the arrow,

Click on the '**Symbols and Arrows**' option, which will modify the value below the **Arrow size**, as shown below:



- o To modify the text size,

Click on the '**Text**' option and modify the value in front of the **Text Height**, as shown below:

A Modify Dimension Style: Standard



Lines Symbols and Arrows Text Fit **Primary Units** Alternate Units Tolerances

Linear dimensions

Unit format: Decimal

Precision: 0.0000

Fraction format: Horizontal

Decimal separator: . (Period)

Round off: 0.0000

Prefix:

Suffix:

Measurement scale

Scale factor: 1.0000

Apply to layout dimensions only

Zero suppression

Leading Trailing

Sub-units factor: 100.0000

0 feet 0 inches

Sub-unit suffix:

Angular dimensions

Units format: Decimal Degrees

Precision: 0

Zero suppression

Leading Trailing

The precision format is shown in the below image:

Precision	Example
0	1
0.0	1.2
0.00	1.20
0.000	1.198
0.0000	1.1966
0.00000	1.19660
0.000000	1.196601
0.0000000	1.1966010
0.00000000	1.19660148

The dimensions will be rounded to the specified precision value.

