

# COMPUTER AIDED DESIGN (CAD)

# 18

## 18-1 INTRODUCTION

The drafting work can be automated and accelerated through the use of Computer Aided Design (CAD) systems. It may be applied for a wide variety of products in the field of automotive, electronics, aerospace, naval, architecture, civil and other disciplines of engineering. CAD systems were originally used for automated drafting only, but now they also include three-dimensional modeling and computer-simulated operations of the models. Sometimes CAD is translated as "computer-assisted drafting", "computer-aided drafting", or a similar phrase. Related acronyms are CADD, which stands for "computer-aided design and drafting"; CAID, for Computer-aided Industrial Design; and CAAD, for "computer-aided architectural design". All these terms are essentially synonymous, but there are some subtle differences in meaning and application.

### MULTIPLE CHOICE QUESTIONS

Choose the most appropriate answer out of the given alternatives:

- i) What should you pay attention to when learning AutoCAD?
  - (a) The Command Line
  - (b) The Status Bar
  - (c) The Title Bar
  - (d) Floating toolbars
- ii) What does WCS stand for?
  - (a) Western CAD System
  - (b) Worldwide Coordinate Sectors
  - (c) World Coordinate System
  - (d) Wrong CAD Setting
- iii) Status bar do not contain
  - (a) Snap
  - (b) Grid
  - (c) Erase
  - (d) Polar
- iv) Coordinates for the current position of crosshair of the cursor is seen in
  - (a) Menu bar
  - (b) Standard toolbar
  - (c) Properties toolbar
  - (d) Status bar
- v) Units command of AutoCAD is **not** used to set
  - (a) Units for linear measurement
  - (b) Units for angular measurement
  - (c) Limits of drawing
  - (d) Direction in which angle is to be measured
- vi) Polar coordinates are used mostly for drawing
  - (a) Circles
  - (b) Arcs
  - (c) Vertical lines
  - (d) Angled lines

- vii) The number of points needed to draw a line using Absolute Coordinates is  
 (a) None (b) One (c) Two (d) Four
- viii) If a line is drawn between points 1,5 and -3,5 its absolute length is  
 (a) Three unit (b) Four units (c) Five units (d) Insufficient data
- ix) How long will line from 1,5 to @5<10 be?  
 (a) One unit (b) Four units (c) Five units (d) Ten units
- x) To move something Six units to the right, what would be the 2nd point of displacement?  
 (a) @6,0 (b) @6<0 (c) Both 1 and 2 (d) Neither 1 nor 2
- xi) Which one is **not** a valid option of Units command?  
 (a) Architectural (b) Decimal (c) Meter (d) Metric
- xii) Snap command is used to regulate the cursor movement to the specified increments along  
 (a) Vertical axis (b) Horizontal axis  
 (c) Cartesian coordinates (d) Polar angles
- xiii) What can be contained in a template drawing?  
 (a) Sheet layout (b) Dimension styles (c) Text styles (d) All of these
- xiv) How many points do you need to define for the Rectangle command?  
 (a) One (b) Two (c) Three (d) Four
- xv) Which one of the following is **not** a valid option for drawing a circle?  
 (a) 3 Points (b) Tan Tan Center (c) Tan Tan Radius (d) Tan Tan Tan
- xvi) 2-points option is used to draw circles by specifying the  
 (a) Two end points of a diameter (b) Two end points of a radius  
 (c) Radius and tangent to two objects (d) Center and two end points of a chord
- xvii) Xline command is used to draw line that  
 (a) Extends up to a specified point (b) Extends up to another line  
 (c) Extends infinity in one direction only (d) Extends infinity in both directions
- xviii) Offset command can be used for drawing  
 (a) Infinite long lines (b) Parallel lines  
 (c) Intersecting lines (d) Perpendicular bisectors
- xix) Objects are rotated around the  
 (a) Base point (b) Bottom right of the object  
 (c) Centre of the object (d) Origin
- xx) Join command is executed by clicking the icon  
 (a)  (b)  (c)  (d) 

- xxi) Scaling objects makes them  
 (a) Bigger (b) Smaller  
 (c) It only stretches them (d) Both Bigger and Smaller
- xxii) When using the TRIM command, which do you select first?  
 (a) The cutting edges (b) The object to be trimmed  
 (c) Everything (d) Nothing
- xxiii) The term used by most CAD systems for “rounding corners” is  
 (a) Chamfer (b) Curve (c) Fillet (d) Smooth
- xxiv) The fillet command creates  
 (a) Sharp corners (b) Round corners (c) Angled corners (d) Smooth corners
- xxv) Which of the following is **incorrect** statement  
 (a) Chamfer command is used to bevel the edges  
 (b) Fillet command is used to round the corners  
 (c) Array command is used to draw multiple copies  
 (d) Scale command is used to draw plain scales

Answer: (i) a (ii) c (iii) c (iv) d (v) c (vi) d (vii) c (viii) b (ix) c (x) c (xi) c (xii) c  
 (xiii) b (xiv) b (xv) b (xvi) a (xvii) d (xviii) b (xix) a (xx) b (xxi) d (xxii) a  
 (xxiii) c (xxiv) b (xxv) d