

## LAB SESSION VII

- 1) **BLOCK**: A block is a collection of drawing objects. It can be inserted anywhere in the drawing. You can rotate or scale the block while inserting it. You can also explode a block into components, modify them and redefine the block. A block can be 31 characters in length and can contain letters, digits and special characters (&, \$, \*, #, ...). AutoCAD converts letters to uppercase. AutoCAD is not case sensitive.

### Advantages:

- a) The user can build a standard library of frequently used symbols, components and standard parts and insert them numerous times, instead of redrawing these elements.
- b) The user can revise drawings efficiently by inserting, reallocating and copying objects as blocks.
- c) This saves disk space as it stores all references to the same block as one block definition.

The “BLOCK” command can be executed by:

- i) Typing “BLOCK” in the command line.
- ii) Through the “MAKE BLOCK” icon on the left toolbar.
- iii) Through “DRAW – BLOCK”

When you use the “BLOCK” command, a “Block Definition Window” pops up.

- a) Name the block in the “Name” window.
- b) Specify the block base point, which by default is (0,0,0)
- c) Select objects, which constitute the block.
- d) Select the pertinent units.

e) Give a brief description.

**2) WBLOCK:** This command writes or saves the block to a new drawing file. This command can be executed by typing “WBLOCK” in the command line. When this command is executed, a “WRITE BLOCK” window pops up. The user has to specify the block name same as the file name. Specify the location where you want the block to be saved.

**3) INSERT:** The “INSERT” command is used to place a named block or drawing in the current drawing. This command can be executed by:

- a) Typing “INSERT” in the command line.
- b) Through “INSERT BLOCK” icon on the toolbar.
- c) Through the “INSERT – BLOCK” menu.

When you execute this command, the “INSERT” window pops up. In the NAME window, specify the name of the block to be placed.

- a) **Insertion Point:** Specify a point or enter an option. Insertion point is the base point of the block.
- b) **X and Y scale Factor:** AutoCAD multiplies all X and Y dimensions of the block X and Y scale factors.
- c) **Rotation Angle:** Rotates the block about the insertion/base point.
- d) **Corner:** Defines the X and Y scales at the same time using the insertion point and another point as the corners of a box.
- e) **XYZ:** Scales the block in all 3 dimensions.