

Name of the Experiment :

Experiment No. : 07



Regd No.

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DATE MONTH YEAR

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3D Modelling of simple objects

Aim:- To draw model simple 3D objects in AutoCAD

Command used:- Line, ellipse, chamfer, aligned dimension, Snap

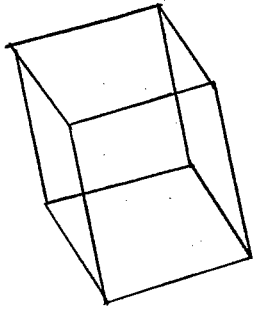
Procedure:-

- * By using workspace tool bar 2D settings are converted into 3D modelling
- * from the view tool bar front view is selected and drawn by using draw commands
- * View is changed from front view to south west isometric
- * The rectangle is extruded by using extrude command with a length of 50mm from the modelling tool bar
- * By using UCS command and selecting sub option face the faces selected on which the hole and slot are to be inserted
- * A cylinder and used are drawn in that view and moved to the required position.
- * Both of them are subtracted from the main block using subtract command from modelling tool bar
- * By using same UCS produce top view is selected and two square block are inserted and subtracted
- * Dimensioning for the length and height of the diagram is kept using linear dimensioning command from dimension tool

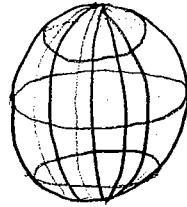
Result:-

Simple 3D solids are modelled using AutoCAD software

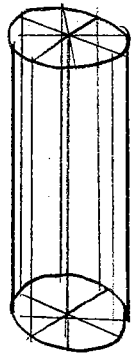




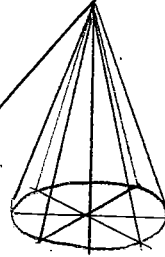
CUBE



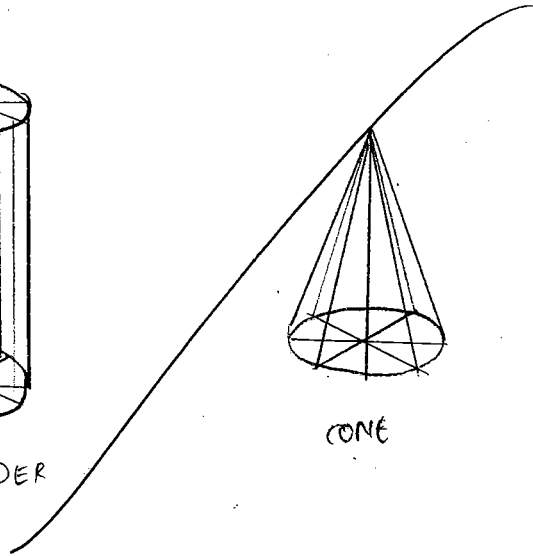
SPHERE



CYLINDER



CONE



Name of the Experiment : I

Experiment No. : II



Regd No. 188X5A0321

DATE MONTH YEAR
26 09 18

3D MODELLING OF SQUARE HEADED BOLT

Aim: To model a square headed bolt in 3D using AutoCAD software

Commands used: line, circle, trim, offset, extrude, union

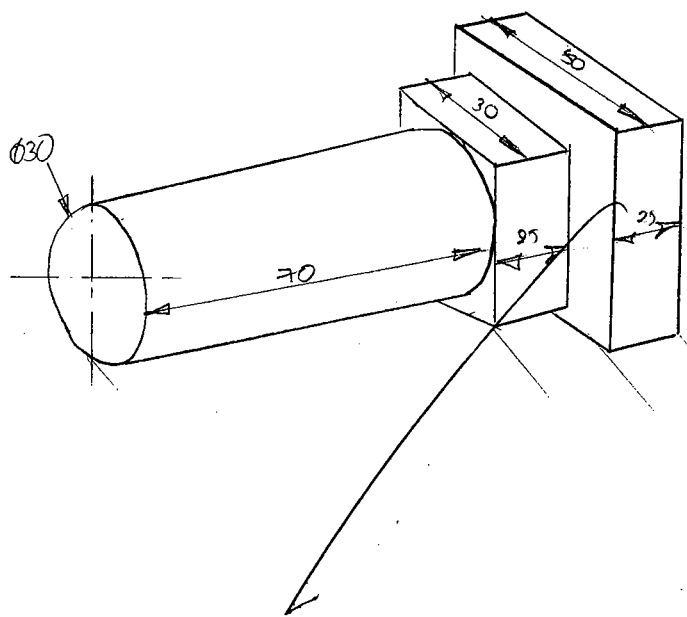
Procedure:

- * By using workspace ~~front~~ to tool bar 2D setting are converted into modelling
- * The diagram is started with axisline and then bolt head is drawn using rectangle command for dimensioning 30x50
- * Another rectangle is drawn using offset command of 30x30
- * A circle is drawn using circle command of diameter 30 mm is the centre of rectangle
- * Extrude the larger rectangle upto 20 units and smaller rectangle to 50 units from base
- * The circle is extruded to 170 units
- * The unnecessary lines are trimmed and the components are joined by using union command
- * Dimensioning for the length and height of the diagram is kept using linear command from dimensions tool bar

Result:

The isometric drawing of a given diagram is drafted using AutoCAD software

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Name of the Experiment :

Experiment No. : 09



Regd No.

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DATE	MONTH	YEAR

3D modelling of shaft with mountings

Aim:- To model a shaft with mountings in 3D using AutoCAD software

Command Used: Line, Offset, Trim, Region, Revolve.

Procedure:-

- * By using workplace tool bar 2D settings are converted into 3D modeling create model in top and changes directions
- * The diagram is started with axis line and thin half shaft is drawn using the Command
- * mounting according borelite are drawn using line drawn upto length of 110 units
- * Using trim. Command, unnecessary lines are trimmed
- * Using Revolve Command, Revolve the drawing through a base point to get the required drawing
- * Dimensioning for the length and height of the diagram is kept using linear dimensioning Command from dimensioning tool bar

Result:-

The isometric drawing of a given diagram is drafted using AutoCAD software.



