

Dr. Babasaheb Ambedkar Technological University, Lonere

Summer Examinations: May 2017

B.Tech Course in Electrical/EXTC (A&B)/Computer/Information Technology

Course: Engineering Graphics

Semester: II

Time: 4 Hours

Max Marks: 60

Instructions to the Students:

1. Solve any five questions from Que. 1 to Que. 6
 2. Illustrate your answers with neat sketches, diagrams etc. wherever necessary.
 3. Necessary data is given in the respective questions. If such data is not given, it means that the knowledge of that part is a part of examination.
 4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.
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Q.1. Answer the following: (12)

- a. Inscribe a regular hexagon in a circle of 50 mm diameter
- b. Inscribe a regular square in a circle of diameter 40 mm.

Q.2 Draw the orthographic projections of the given Fig.1 (first angle projection)
a. Front View (F.V.) (6)

b. Top View (T.V.) (6)

Q.3 Answer the following: (12)

The top view of a 75 mm long line AB measures 65 mm, while the length of its front view is 50 mm. It's one end A is in the H.P. and 12 mm in front of the V.P. Draw the projections of AB and determine its inclinations with the **H.P.** and the V.P.

Q.4 Answer the following: (12)

A regular pentagonal pyramid, base 30 mm side and height 80 mm rests on one edge of its base on the ground so that the highest point in the base is 30 mm above the ground. Draw its projection when the axis is parallel to the V.P.

Q.5 Answer the following: (12)

A cylinder of 40 mm diameter, 60 mm height and having its axis vertical, is cut by a section plane, perpendicular to the V.P., inclined at 45° to the H.P. and intersecting the axis 32 mm above the base. Draw its front view,

OR

Draw the isometric view of the Fig. 2 (first angle projection).

Q.6 Answer the following:

(12)

A pentagonal pyramid, base 30 mm side and axis 60 mm long, is lying on one of its triangular faces on the H.P. with the axis parallel to the V.P.

A vertical section plane, whose H.T. bisects the top view of the axis and makes an angle of 30° with the reference line, cuts the pyramid, removing its top part. Draw the development of the surface of the remaining portion of the pyramid.

OR

A hexagon of 30 mm side is resting on a corner in the H.P., with its surface making an angle of 30° with the H.P. The Top View of the diagonal passing through that corner is inclined at 60° to the V.P. Draw the three principal views.

