



**GOVERNMENT COLLEGE OF ENGINEERING, JALGAON**  
(An Autonomous Institute of Government of Maharashtra)

National Highway No.6, JALGAON – 425 002

Phone No.: 0257-2281522  
Website : www.gcoej.ac.in

Fax No.: 0257-2281319  
E-mail : princoej@rediffmail.com



Name of Examination : **Winter 2020** - (Preview)

Course Code & Course Name : **ME151U - Engineering Graphics and Drafting**

Generated At : **18-04-2022 16:22:00**

Maximum Marks : **60**

Duration : **3 Hrs**

[Edit](#) [Print](#) [View Answer Key](#) [Close](#) **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. All questions are compulsory.
2. Illustrate your answer with suitable figures/sketches wherever necessary.
3. Assume suitable additional data; if required.
4. Use of logarithmic table, drawing instruments and non programmable calculators is allowed.
5. Figures to the right indicate full marks.

**1) a) Solve any TWO sub-question**

[6]

The distance between the end projectors of a line PQ is 50 mm. Point P is 29 mm above HP and 21 mm behind VP. While a point Q is 42 mm below HP and 30 mm in front of VP. Draw the projections of the line and determine the true length and the true inclinations of the line with HP and VP.

b) The top view and front view of a line AB measures 70 mm and 58 mm respectively. The line AB is inclined at an angle of  $35^\circ$  to HP. The end A is 15 mm above HP and 12 mm in front of VP. The other end B is also in the first quadrant. Draw the projections of the line AB. Find its true length and true inclination with the VP. [6]

c) A square prism side of base 45 mm and axis length 90 mm has its axis vertical and rectangular faces equally inclined to VP. A square hole of sides 30 mm is drilled through the prism completely such that the axis of hole is perpendicular to VP and bisects the axis of vertical square prism. The sides of square hole are equally inclined to HP. Draw the development of retained portion of square Prism. [6]

**2) a) Solve ALL sub-question**

[6]

A regular hexagon of 30 mm side has a corner in the HP. Its surface is inclined at  $40^\circ$  to the HP and the diagonal through the corner which is in the HP makes an angle of  $60^\circ$  with the VP. Draw its projections.

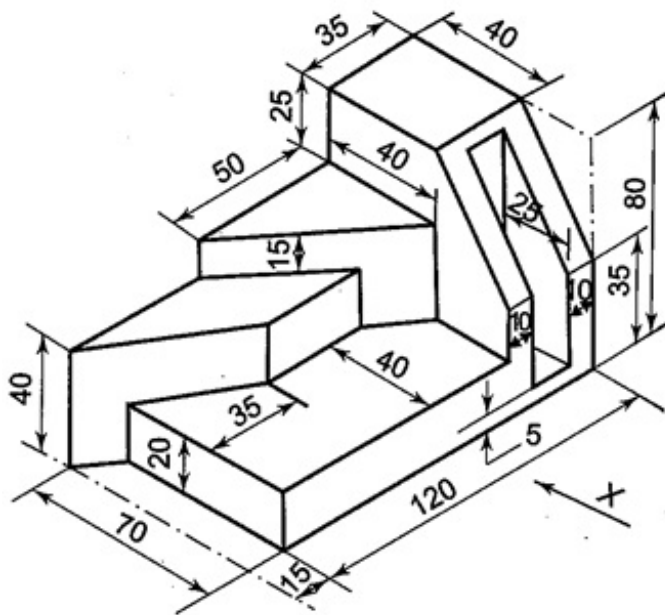
b) A triangular plate has sides 80 mm, 70 mm and 60 mm. Its TV is a right-angled triangle with one side as 80 mm making an angle of  $60^\circ$  with XY. Draw the projections of the plate. [6]

3) Draw the projections of a cylinder of base 30 mm diameter and axis 40 mm long, which lies on HP on a point of its rim, with its axis inclined at  $30^\circ$  to HP. The inclination of the axis with VP is  $60^\circ$ . [12]

**4) a) Solve any ONE sub-question**

[12]

Draw the front view, looking in the direction of arrow X, the top view and the left-hand side view of the blocks shown in figure A.

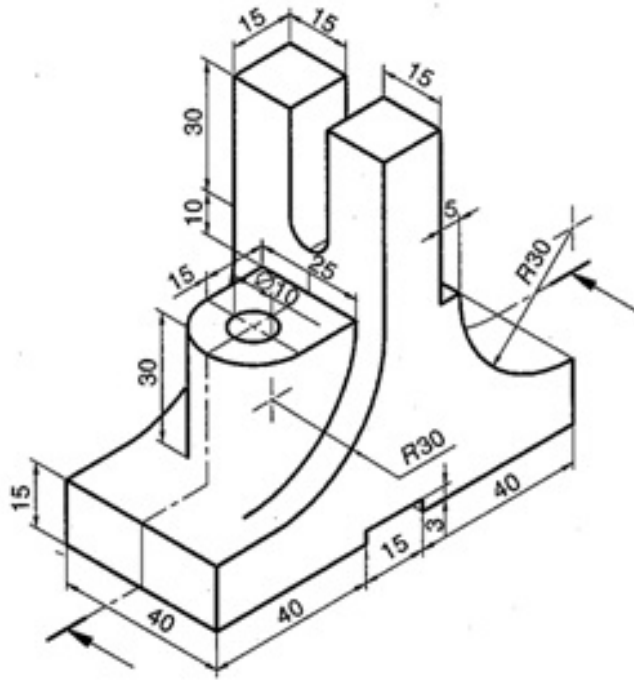


**Figure A**

**OR**

b) Draw the sectional front view, top view and left-hand side view of the object shown in figure B using first angle method of projection.

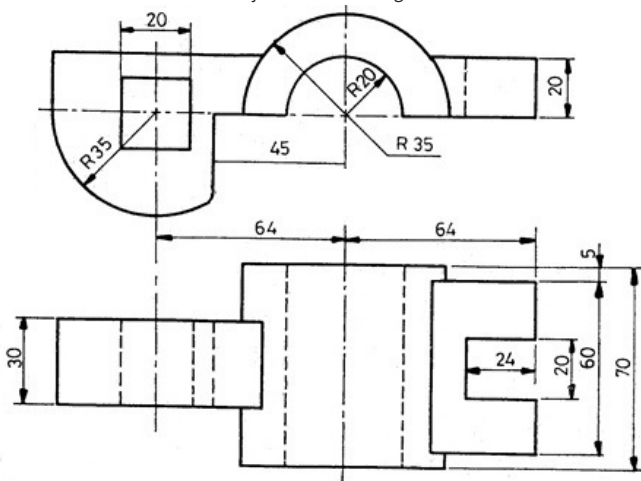
[12]



**Figure B**

5) Draw an isometric view of the object as shown in figure C.

[12]



**Figure C**