### DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

## **Regular End Semester Examination – Winter 2022**

Course: B. Tech. Branch: All Semester: I Subject Code & Name: BTES103G/BTES203G Engineering Graphics

**Max Marks:** 60 **Date:** 25/03/2023 **Duration:** Hrs

#### Instructions to the Students:

- 1. All the questions are compulsory.
- 2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.
- 3. Assume suitable data/dimensions wherever necessary and mention it clearly.

(Level/ Marks CO)

## Q. 1 Answer Any Two of the following.

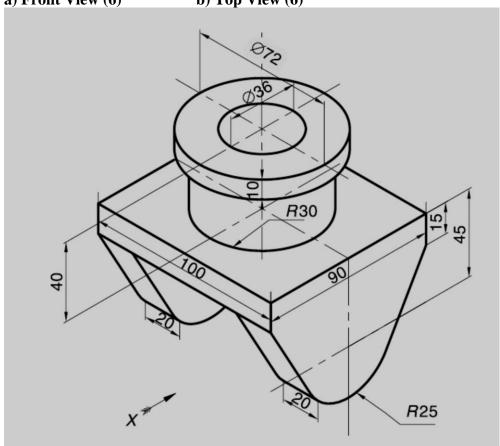
**A)** Draw a regular pentagon of 30 mm side by any method.

- U 6
- **B**) Draw the following types of lines according to drawing standard SP 46.
- U 6

- 1. Locus line
- 2. Centre line
- 3. Cutting plane line
- C) Draw the projections of the following points on the same reference line, keeping U/A 6 the projectors 30 mm apart.
  - P, 30 mm above the H.P. and 25 mm behind the V.P.
  - Q, 40 mm below the H.P. and 20 mm behind the V.P.
  - C, in the V.P. and 50 mm above the H.P.

# Q.2 Answer Any Two of the following.

- **A)** Draw the following views of the object (in X direction) shown below, by using R/A first angle projection method.
  - a) Front View (6)
- b) Top View (6)



- **B)** A circular plate of negligible thickness and diameter 80 mm has a point A on its circumference in the VP. The surface of the plate is inclined to the VP in such a way that the FV is seen as an ellipse of 50 mm long minor axis. Draw the projections of the plate when FV of diameter AB makes 45° with the HP. Find inclination of the plate with the VP.
- C) FV of a line measures 70 mm and makes an angle of 30° with XY. The end A is in the HP and the VT of the line is 10 mm below XY. The line is inclined at 45° to the VP. Draw the projections of the line and find its TL and true inclinations with the HP. Also locate the HT.

R/A

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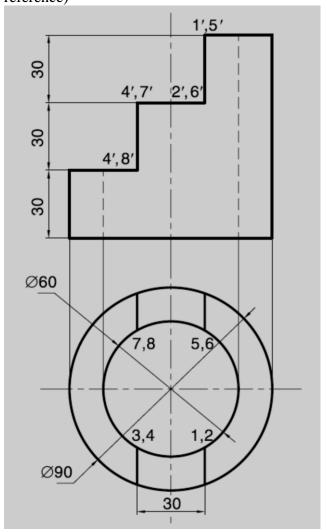
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## Q. 3 Answer Any Two of the following.

- A) A cone of diameter 60 mm and height 60 mm is resting on the HP on one of its generators. Draw its projections if its axis is parallel to the VP.
- B) A pentagonal pyramid having a base side of 45 mm and a slant length of 80 mm rests on its base on the HP with a base edge AB perpendicular to the VP. A section plane passing through corner D and perpendicular to the slant face ABO cuts the solid. Draw FV and sectional TV. (8)

  The upper part of the solid is removed and kept on its cut surface on the HP without changing its orientation with respect to the VP. Draw the two views of the part of the pyramid. (4)
- C) Figure shows FV and TV of an object. Draw the isometric view that will show maximum details of the object. (Points in the figure are marked for your reference)



\*\*\* End \*\*\*