**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE – RAIGAD -402 103**

**Winter Semester Examination – Dec. 2019**

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**Course:** B. Tech (All) **Semester: I**
**Subject:** Engineering Graphics (EG1203)
**Date:** 24/12/2019 **Marks:** 60 **Time:** 4 Hrs.

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**Instructions to the Students**

1. Each question carries 12 marks.
2. Attempt **any five** questions out of the following six questions.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter or dimension is noticed to be missing, you may appropriately assume it and should mention it clearly

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**(Marks)**

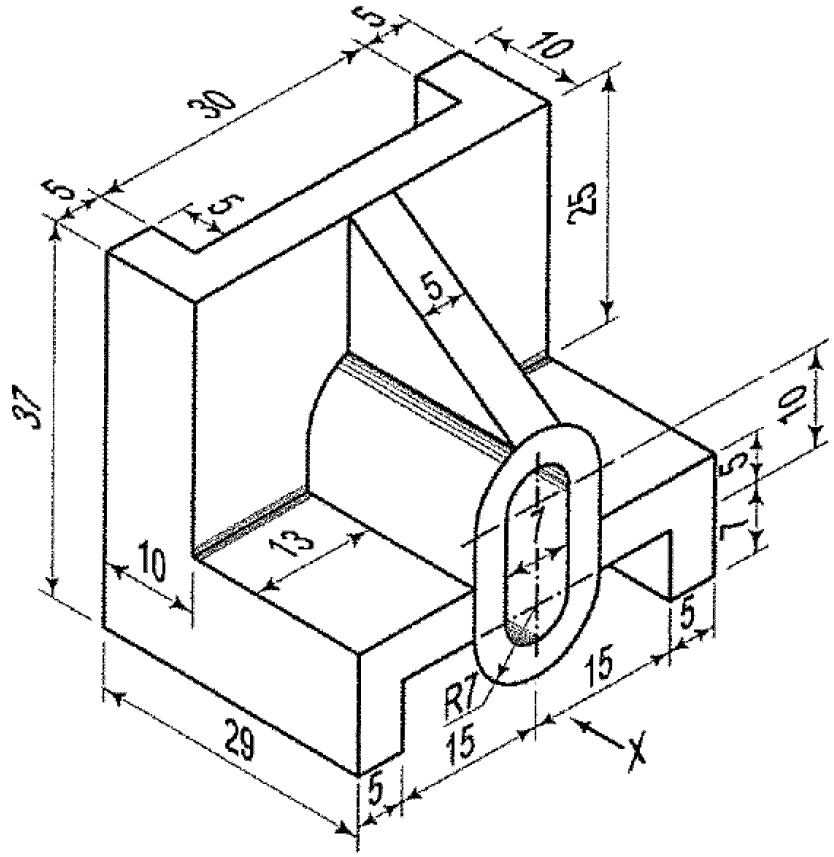
**Q.1 a)** Draw the following sentence according to drawing standard SP 46 (or any other standard convention). **(6)**

**INDIA, that is BHARAT, shall be a Union of States.**

**b)** Draw a regular pentagon of 30 mm side by any method and draw also a circle touching each corner of the pentagon. **(6)**

**Q.2** Draw the following views of the object (in X – direction) shown below, by using first angle projection method.

**a) Front View (6)** **b) Top View (6)**




**Q.3.** Draw the projections of a regular hexagon of 30 mm side, which is resting on a corner in the H.P., with its surface making an angle of 30° with the H.P. The TV of the diagonal passing through that corner is inclined at 60° to the V.P**. (12)**

**OR**

A line CD, 90 mm long, measures 72 mm in FV and 65 mm in TV. Draw the two views of the line if it fully lies in the first quadrant. Find the true inclinations of the line. Assume point C at suitable distances from the RPs. **(12)**

**Q.4** A triangular prism with side of base 40 mm and length of axis 70 mm has its edge of base in the V. P. and inclined at $60^0$ to the H. P. The rectangular face containing that edge makes $30^0$ with the V.P. Draw the projections of the prism. **(12)**

**Q.5.** A horizontal cylinder (axis parallel to the VP) with a 60 mm diameter and 100 mm length is cut by an auxiliary incline plane (AIP) such that the true shape of the section is an ellipse of major axis 90 mm. Draw its front view, side view and locate the cutting plane. Also, draw the true shapes of the section. **(12)**

**Q.6.** Draw the isometric view of the following object having FV and TV drawn by **third angle projection** method. **(12)**

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