Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–I &II (OLD) EXAMINATION – SUMMER-2019

Subject Code: 110013   **Date: 18/06/2019**

Subject Name: Engineering Graphics

Time: 10:30 AM TO 01:30 PM   **Total Marks: 70**

Instructions:
1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 **(a)** Draw symbol of third angle projection method with usual dimension.   **02**

(b) Draw front view, top view and left hand side view of the object shown in Fig 1   **12**
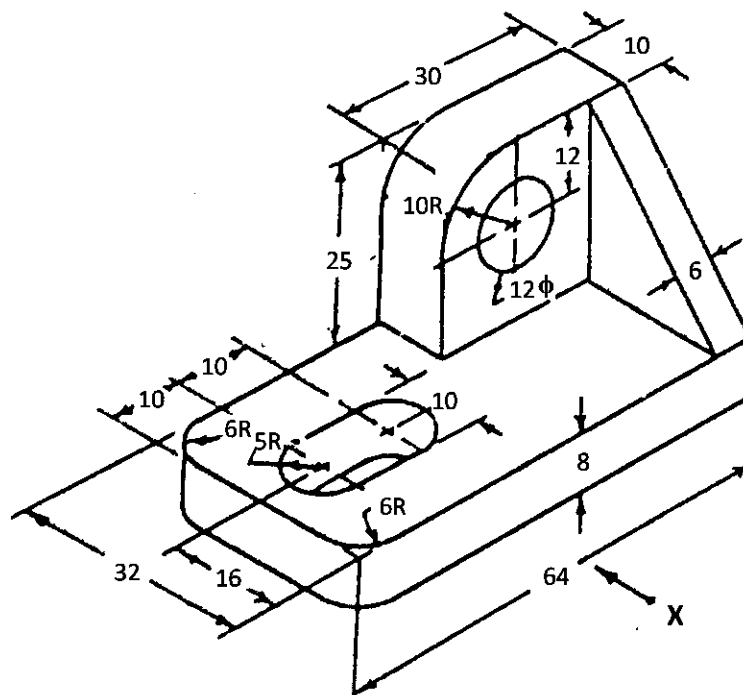in first angle projection method.

Fig 1

Q.2 **(a)** Draw an ellipse using an arc of circle method having major axis 100 mm and   **07**
minor axis 70 mm long.

(b) A six hit by Sachin attain maximum height of 42 meter before it cross and fall   **07**
outside the boundary 66 meter away from batting crease, draw the path of ball
and name the curve.

Q.3 **(a)** While pendulum swings 72^0 from its initial position and return back, a point on   **07**
the rod of pendulum moves 96 mm down to other end. Draw the loci of point.

(b) The line AB having it top view 'ab' 55 mm long and inclined to VP by 30^0. The   **07**
end A is 18 mm above HP and 9 mm in front of VP. While end B is 56 mm above
HP and in front quadrant. Draw the projections of line and find its true length, its
inclination with HP and VP.

1

Q.4 **(a)** A line AB, 65 mm long has its end A 20 mm above H.P. and 25mm in front of VP. The end B is 40 mm above H.P. and 65 mm in front of V.P. Draw the projections of AB and shows its inclination with H.P. and V.P.   **07**

(b) A regular pentagon of 30 mm side is resting in VP with the side AB and making an angle of 40^0 with HP. Plane of the pentagon makes 35^0 with VP. Draw its projections.   **07**

Q.5 **(a)** A thin circular plate of 60 mm diameter is inclined at an angle of 60^0 with HP while diameter of it is parallel to both HP and VP. Center of the plate is 50 mm from VP and 40 mm from HP. Draw front view and top view of plate.   **07**

(b) On a map the distance between Somnath and Dwarka is shown by 12 cm. The actual distance is 240 km. Draw a diagonal scale to read this map in kilometers correctly and long enough to read 300 km. also show distance of 128 km between Porbandar and Somnath   **07**

Q.6 **(a)** A regular hexagonal pyramid, side of base 30 mm side and height 60 mm is resting on the ground on one of its edge of the base. The axis of thy pyramid is inclined by 30^0 with HP and the edge on which it rest is inclined by 45^0 to the VP. Draw the projections of solid.   **07**

(b) A cone 40 mm diameter of base and 60 mm height is resting on HP on its base. A section plane inclined to 45^0 with HP and perpendicular to VP cuts the cone in two halves. Draw the projection of truncated cone and develop its lateral surface.   **07**

Q.7 **(a)** Draw isometric circle on the three side of cube of 50 mm dimension.   **04**

(b) Figure 2 shows front view and side view of an object, draw isometric projections.   **10**
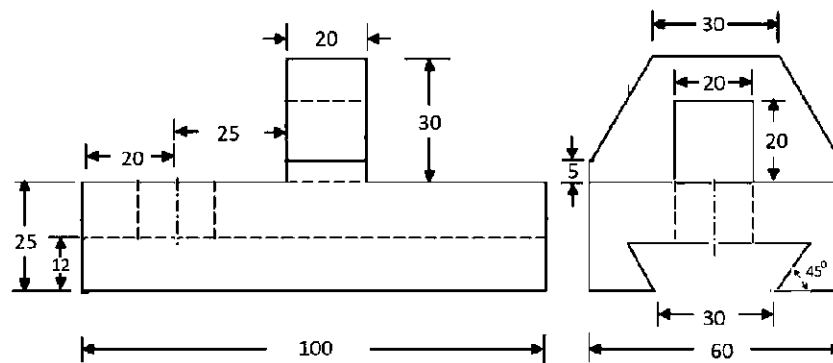

Fig. 2

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