

**DIPLOMA IN CIVIL ENGINEERING (DCLE(G)) /  
DIPLOMA IN MECHANICAL ENGINEERING  
(DME) / DCLEVI / DMEVI / DELVI / DECVI /  
DCSVI / ACCLEVI / ACMEVI / ACELVI / ACECVI  
/ ACCSVI**

**Term-End Examination**

00722

**December, 2016**

**BET-016 : ENGINEERING DRAWING**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** *Questions no. 1 and 2 are compulsory and are to be attempted on the Answer Script and others on the drawing sheet. Answer any two questions from the remaining four questions.*

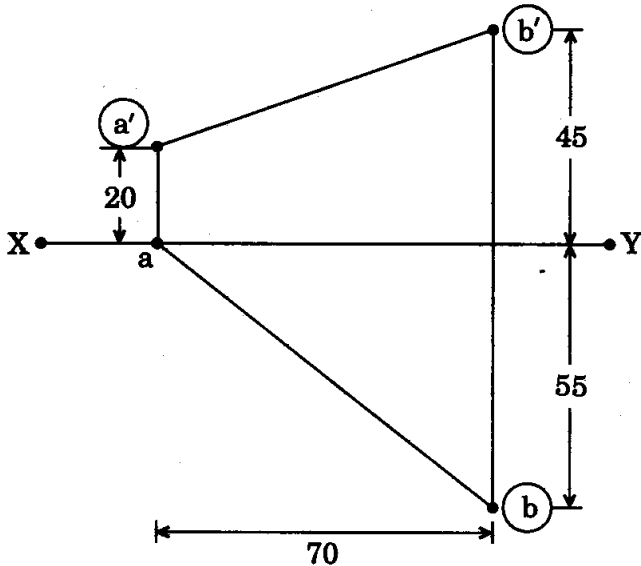
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1. Attempt any **seven** questions. All questions carry equal marks.  $7 \times 2 = 14$
- (a) What is the conventional representation of First-Angle Projection ?
  - (b) Give the names of two conic sections obtained by the intersection of a right circular cone by a cutting plane.
  - (c) Differentiate between a perpendicular plane and an oblique plane.

- (d) Fill the blanks with appropriate words selected from the list :
- (i) When a line is perpendicular to any one of the reference planes, it will be \_\_\_\_\_ to other reference plane (inclined or parallel).
  - (ii) True shape of a plane is obtained in that reference plane where it is \_\_\_\_\_ (perpendicular or parallel).
- (e) Mention *True* or *False* :
- (i) Representative fraction value in case of enlarging scale will always be directly equal to one.
  - (ii) Eccentricity of a hyperbola is always greater than one.
- (f) Calculate the developed length of a cylinder which has a base diameter of 70 mm.
- (g) Explain frustum of a cone with the help of a simple sketch.
- (h) Make a list of at least four different types of pyramids as per the shape of the base.

2. (a) As per the given projections of a line 'AB', find out the true length of the line.

6



- (b) Draw the projections and state the quadrants to which the following points belong :
- Point 'C' in H.P. and 50 mm in front of V.P.
  - Point 'D' 40 mm above H.P. and 40 mm behind V.P.
- (c) Calculate the length of the scale needed to measure up to 6 metres given that R.F. = 3 : 200.

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**OR**

Differentiate between Reducing Scale and Enlarging Scale.

4

3. A line 'PQ', 75 mm long, is inclined at  $45^\circ$  to H.P. and  $30^\circ$  to V.P. Its one end is in the H.P. and 40 mm in front of V.P. Draw its projections. 21
4. Construct a parabola, when the distance of the focus from the directrix is 60 mm. 21
5. A regular hexagonal plane of side 40 mm rests in H.P. on one of its sides. Draw its projections when its surface is inclined at  $45^\circ$  to H.P. and perpendicular to V.P. 21
6. Draw the isometric view of a cone, two views of which are shown in the given figure. 21

