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BET-016

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

01370

Term-End Examination

June, 2014

BET-016 : ENGINEERING DRAWING

Time : 2 hours *Maximum Marks : 70*

Note : *Part A is to be attempted on the Answer-Script and Part B on a Drawing Sheet.*

PART A

*Question no. 1 is compulsory. Attempt any **five** questions from the remaining seven questions.*

1. (a) Define Dimensioning. *5×2=10*

(b) What are the general uses of Enlarging-scale and scale of chord ?

(c) Write down the name of different conic-sections.

(d) With the help of simple sketches, define the Reference-planes and Reference-line.

(e) Write down only the names of methods which are used in the construction of ellipse when both major and minor axes are given.

2. Draw the conventional symbols for 1st angle and 3rd angle projections (also indicate the line of sight). *6*

3. Differentiate between "PLANE" and "SOLID". Sketch any one type of solid with the names of its parts. *6*

4. An area of 160 sq. cm. on a map represents an area of 40 sq. km. on the field. Calculate the value of representative fraction (R.F.) of this scale. *6*

5. What are the different positions of a "PLANE" with respect to the reference plane i.e. H.P. and V.P. ? *6*

6. As per Figure 1, find out the relative trace of a line : *6*

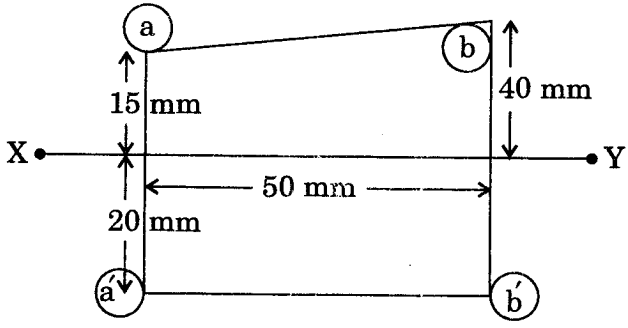

Figure 1

7. State the quadrants in which the following points are situated :

(a) A point "D" – Its top view and front view are 45 mm and 60 mm below the reference-line, respectively.

(b) A point "F" – Its both the projections (Top-View and Front-View) coincide with each other 50 mm above the reference-line. *6*

8. Figure 2, shows the Top-View and Front-View of a square-prism which is cut by a section plane 'VT'. Show its "Sectional-Top-View". *6*

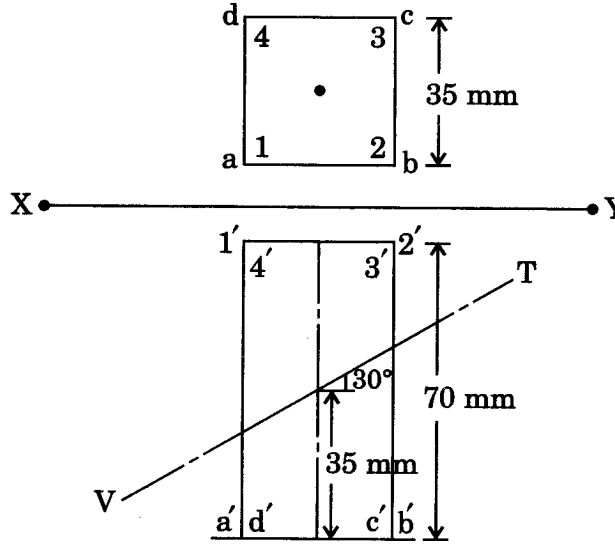

Figure 2

PART B

*Attempt any **two** questions. Each question carries equal marks.* *2×15=30*

9. Draw a plain scale of R.F. = 1 : 50, showing metres and decimetres and to measure upto 9-metres. Show the length of 6-metres and 7-decimetres on it.

10. A straight line 75 mm long, is inclined at 45° to H.P. and 30° to V.P. Draw its projections when its one end is in H.P. and 40 mm in front of V.P.

11. A square pyramid, base edge 40 mm and axis 70 mm long, has a corner of its base in H.P. Its axis is inclined at 30° to H.P. and parallel to V.P. Draw its projections.

12. Draw the following views of the given block as shown in Figure 3 by using 3rd angle projections : (All dimensions are in mm)

(i) Top-View

(ii) Front-View

(iii) Side-View

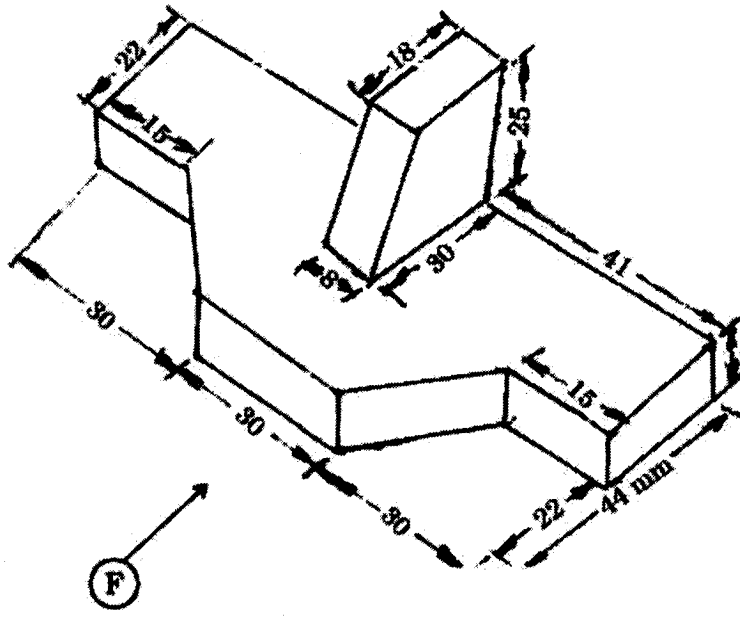

Figure 3