BET-016

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

Term-End Examination

ロロ己ロ구   December, 2017

BET-016 : ENGINEERING DRAWING

Time : 2 hours   *Maximum Marks : 70*

Note : *Part A is to be attempted on an answer script, Part B on a drawing sheet.*

PART A

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

1. (a) What are the two systems of proportioning dimensions ?

    (b) Calculate the length of scale when R.F. = $\frac{1}{50}$ and maximum reading to be read out is 6 metres.

(c) Write down the names of any two types of conic sections.

(d) Represent the convention of 1st angle projection as per BIS standards.

(e) Calculate the developed length of a regular pentagonal prism, having the base side 35 mm and axis 70 mm long. *5×2=10*

2. Draw the projections of the following points : *10*

   (a) Point 'A' in H.P. and 50 mm in front of V.P.

   (b) Point 'B' 40 mm below H.P. and 40 mm in front of V.P.

3. Give the names and sketches of various types of lines to be used in engineering drawing. *10*

4. What is the use of an isometric scale ? Differentiate between Orthographic projection and Isometric projection. *10*

5. Explain with the help of simple sketches, Aligned and Unidirectional dimensioning systems. *10*

6. What is the relation between isometric length and actual length ? How is isometric length calculated by using an isometric scale ? *10*

PART B

*Attempt any **two** questions. All questions carry equal marks.*

7. Construct a Hyperbola when the distance of focus from the directrix is equal to 60 mm and eccentricity is 3/2.   *15*

8. Construct a diagonal scale of R.F. = $\dfrac{1}{6250}$ to read upto 1 kilometre. Show a length of 685 metres on it.   *15*

9. A regular hexagon of 25 mm side has one of its corners in H.P. Its plane is inclined at 60° to H.P. and perpendicular to V.P. Draw its projections.   *15*

10. In the given figure, top view and front view of a cone are given. Draw its isometric view.   *15*

75 mm

(FRONT VIEW)

← 50 mm →

(TOP VIEW)