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BET-016

DIPLOMA IN CIVIL ENGINEERING/DIPLOMA IN ELECTRICAL AND MECHANICAL ENGINEERING

Term-End Examination

June, 2019

BET-016 : ENGINEERING DRAWING

Time : 2 Hours *Maximum Marks : 70*

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

Part–A

Note : *Question No. 1 is compulsory. Attempt any five questions from the remaining seven questions.*

1. (a) Diagonal Scales are to be used for measurement of two units or three units (Choose the correct answer). 2

   (b) What is the standard trimmed size of drawing sheet (Designation A-1) recommended by B. S. I. ? 2

(c) State the position with respect to both the reference planes when an object lies is 4th quadrant. 2

(d) Differentiate in between "1st Angle" and "3rd Angle" projections. 2

(e) Define R. F. (Representative-Fraction). 2

2. Define a Regular Polygon. Make a list of various types of Polygon. 6

3. Explain the aligned system and unidirectional system of placing dimensions on a drawing. Illustrate your answer with simple sketches. 6

4. The projections of line "PQ" are given in Figure 1. Find out the True-length of this line. 6

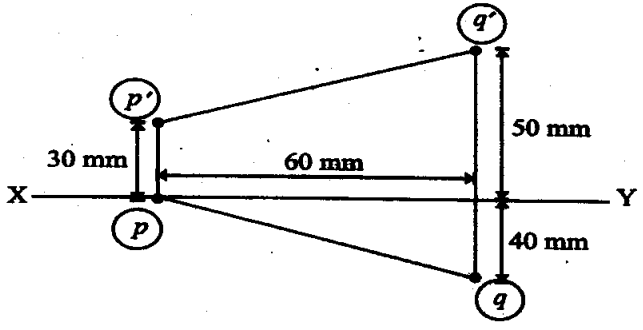

Fig. 1

5. Write down any *three* conditions of a straight line with respect to both the reference planes i. e. H. P. and V. P. 6

6. A cylinder of base diameter 56 mm and axis 70 mm long, rests in standing position. Draw its front view and top view. 6

7. Draw the projections of the following points : 6

   (i) Point 'C' 50 mm below H. P. and 50 mm in front of V. P.

   (ii) Point 'D' in H. P. and 45 mm behind V. P.

8. Mention True *or* False : 6

   (i) Circle in Isometric projection appears as an Ellipse.

   (ii) Development of lateral surface of a pyramid is Rectangular.

   (iii) An object located below H. P. and behind V. P. would lie in the 4th quadrant.

Part–B

Note : *Attempt any two questions. Each question carries equal marks.*

9. A 3.2 cm long line represents a length of 4-metres. Extend this line to measure length upto 25-metres. Construct a Scale to show units of metre and 5 metres. Show the length of 18-metres on this scale. 15

10. Construct an Ellipse by "Concentric method" when major and minor axes are 100 mm and 70 mm long respectively. 15

11. Draw projections of a line AB of 12 cm length. It is parallel to both H. P. and V. P. It is 10 cm above H. P. and 8 cm in front of V. P. 15

12. Fig. 2 shows the front-view and top-view of the Frustum of a truncated cone with 60 mm base diameter, 45 mm top diameter and 70 mm long axis, resting on its base on H. P. Draw its isometric view. 15