

**TECHNICAL DRAWING**

Time Allowed: 2 Hours

Full Marks: 35

Answer to Question No.1 is compulsory and to be answered first.

This answer is to be made in separate loose script(s) provided for the purpose.

Maximum time allowed is 30 minutes, after which the loose answer scripts will be collected and fresh answer scripts for answering the remaining part of the question will be provided.

On early submission of answer scripts of Question No.1, a student will get the remaining script earlier.

Answer any three questions from the rest.

1. Fill in the blanks (any eight): 1x8
- i) The full form of BIS is \_\_\_\_\_.
  - ii) The size of letter is described by its \_\_\_\_\_.
  - iii) The edge of the board on which T-square is made to slide is called it's \_\_\_\_\_.
  - iv) The full form of I.S.O. is \_\_\_\_\_.
  - v) A plane figure or surface has \_\_\_\_\_ dimension only.
  - vi) When drawing is drawn of same size, the scale used is \_\_\_\_\_ scale.
  - vii) When  $e = 1$ , the curve is said to be \_\_\_\_\_.
  - viii) The \_\_\_\_\_ is a point of which generator cuts the axis.
  - ix) The curve generated by a point on the circumference of circle rolling along a straight line is called \_\_\_\_\_.
  - x) If a point is above H.P. and behind V.P., the point is in \_\_\_\_\_ quadrant.
  - xi) In \_\_\_\_\_ projection the \_\_\_\_\_ are parallel to each other and perpendicular to each plane.
  - xii) In \_\_\_\_\_ angle projection method the \_\_\_\_\_ view is always comes above \_\_\_\_\_ view.
2. a) Draw a regular pentagon of 40 mm sides using general method. 5+4  
 b) Inscribe a regular hexagon in a circle of radius 80 mm.
3. A map  $1.5\text{ m} \times 1\text{ m}$  represents an area of  $3000\text{ km}^2$ . Construct a scale to measure Km, Hm and Dm and long enough to be measure up to 5 Km. Find also the R.F. and length of the scale. 9
4. Construct an ellipse when the distance of the focus from directrix is equal to 50 mm and eccentricity is  $2/3$ . 9
- OR**
- Inscribe the largest possible swimming pool of elliptical shape in a rectangular area of 120 metre  $\times$  80 metre sides. 9
5. Draw the involute of a regular pentagon of 30 mm sides. 9
6. a) A line PQ 8 cm long is in the H.P. and makes an angle of  $45^\circ$  with V.P. Its end P is 2.5 cm in front of V.P. Draw it's projections.  
 b) A line AB 60 mm long is in V.P. and makes an angle of  $45^\circ$  with H.P. Its end A is 15 mm above H.P. Draw its projections. 4½x2
7. Looking from the direction of arrow draw the elevation, plan and right hand side view of Fig-1. 9

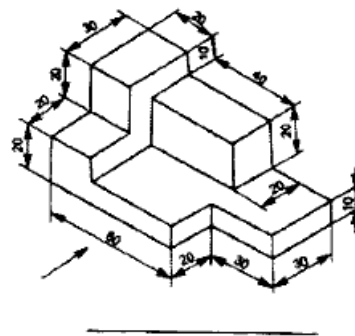


Fig-1