

## General Instructions to the Candidate :

1. This Question Paper consists of 5 objective and subjective types of questions.
2. This question paper has been sealed by reverse jacket. You have to cut on the right side to open the paper at the time of commencement of the examination. Check whether all the pages of the question paper are intact.
3. Follow the instructions given against both the objective and subjective types of questions.
4. Figures in the right hand margin indicate maximum marks.
5. The maximum time to answer the paper is given at the top of the question paper. It includes 15 minutes for reading the question paper.

Instructions: i) Answer all the questions.
ii) Retain the constructional details.
iii) All dimensions are in mm.
iv) Use first angle projection only.
v) Missing dimensions may be assumed.
vi) All drawings should be drawn in drawing sheet only.

1. a) Fill in the blanks with the correct figure/word(s) by selecting from the choices given in the brackets :
$5 \times 1=5$
i) Dimension lines are drawn as
( thin lines, thick lines, dashed narrow lines )
ii) The scale used for measuring in three systems of units is $\qquad$ .
( plain scale, diagonal scale, comparative scale )
iii) Heptagon has $\qquad$ sides.
iv) In an orthographic projection the plan is obtained of a plane called $\qquad$ . .
$\qquad$ one.
(less than, greater than, equal to )
b) Match the following :

## Group A

i)
i) B. S. W. thread
a) 47.5 degree
ii) B. A. thread
b) 29 degree
iii) Square thread
c) 45 degree
iv) Acme thread
d) 55 degree
v) Metric thread
e) 90 degree
f) 60 degree.
2. a) Print the following in single stroke inclined capital letters of height 18 mm with $6: 5$ ratio. 5

## 'TURBINE'

b) Construct a plain scale of R.F. $=1 / 100$ to show metres and decimetres and long enough to measure up to 10 metres. 5
3. a) Construct an ellipse when the major axis is 130 mm and the distance between the two focal points is 100 mm apart. (Intersecting arc method)
b) Construct a parabola in a rectangle of sides $150 \mathrm{~mm} \times 100 \mathrm{~mm}$.
4. The pictorial view of an object is shown in figure No. 1. Draw the following orthographic views and mark the dimensions. 10
(i) Front view - Looking in the direction of arrow ' X '

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(ii) Top view - Looking in the direction of arrow 'Y'
(iii) Side view - Looking in the direction of arrow ' $Z$ '.


Figure No. 1

OR

The pictorial view of an object is shown in figure No. 2. Draw the following orthographic views and mark the dimensions.
(i) Front view - Looking in the direction of arrow ' X '
(ii) Top view - Looking in the direction of arrow 'Y'
(iii) Side view - Looking in the direction of arrow ' $Z$ '.


Figure No. 2

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5. Figure No. 3 shows the sectional elevation of split-muff coupling. Draw the sectional elevation of split-muff coupling to full size ( $1: 1$ size ) and mark dimensions.


## SPLIT-MUFF COUPLING

Figure No. 3

