

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 square prism of base side 40 mm and axis 60 mm is resting on its base on the ground. Draw its projections when a face is perpendicular to the V.P.
2. With a neat sketch show the proportions and angle of the following threads :
a) B. A. thread
b) Square thread.
3. A hexagonal pyramid of base side 30 mm and axis 60 mm has an edge of its base on the ground. Its axis is inclined at $30^{\circ}$ to the ground and parallel to the V.P. Draw its projections.

OR
A hexagonal pyramid of base edge 30 mm and axis 60 mm has a triangular face on the ground and the axis parallel to the V.P. Draw its projections.
4. The front and right hand side views of an angle plate are shown in figure No. 1. Draw its isometric view.


Figure No. 1
5. 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 ' $X$ '

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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. 2
6. Figure No. 3 shows the sectional elevation of a solid flanged coupling. Draw the sectional elevation of a solid flanged coupling to half full size (1:2 size) and mark dimensions.


SOLID FLANGED COUPLING
Figure No. 3

