

Attempt all questions

1.
 - (a) Construct an isometric scale.
 - (b) Draw the isometric projection of the frustum of a hexagonal pyramid, base side 30 mm, resting on HP on its base. One of the base sides is parallel to VP and the axis is perpendicular to HP. Give all dimensions.
 - (c) A frustum of a cone of base diameter 18 mm, top diameter 28 mm & height 44 mm resting vertically over the top face of the frustum of a hexagonal pyramid, base edges 30 mm, top edges 20 mm & height 22 mm having two of its base edges parallel to VP. Draw isometric projection of the combination of solids having their common axis vertical.
2.
 - (a) Draw to scale 1:1, the plan & front view of a hexagonal nut taking its nominal diameter as 25 mm, keeping its axis perpendicular to HP & two opposite sides of the hexagon parallel to VP. Give standard dimensions.

OR

Draw to scale 1:1, the standard profile of a B.S.W. Thread, taking enlarged pitch as 50 mm. give standard dimensions.

- (b) Sketch freehand the front view & top view of a plain stud with a square neck of size M 30, keeping the axis perpendicular to HP. Give standard dimensions.

OR

Sketch freehand the front view & top view of a Grub screw of diameter 25 mm. give standard dimensions.

3. Fig shows the details of the parts of an unprotected Flanged Coupling having rocket and spigot arrangements. Assemble these parts correctly and draw the following views to full size scale.
- (i) front view top half in section (ii) right hand side view

Write title & scale used. Draw projection symbol. Give seven important dimensions.



