1. (a) Construct an isometric scale.
   (b) Draw the isometric projection of the frustum of a triangular pyramid of base sides 40 mm, top sides 25 mm, 60 mm axis resting vertically on HP with a base side perpendicular to VP. Give all dimensions.
   (c) A cylindrical disc of base diameter 90 mm & height 50 mm rests on its circular base on HP. A regular pentagonal prism of base sides 26 mm & length 50 mm with its axis perpendicular to VP rests on one of its rectangular faces, over the top circular face of the disc. Draw the isometric projection of the combination.

2. (a) Draw to scale 1:1 the front view & top view of a T-headed bolt of size M 30 keeping its axis vertical.
   OR
   Draw to scale 1:1 the standard profile of a square thread & knuckle thread taking enlarged pitch as 50 mm.
   (b) sketch freehand the front view & top view of a counter sunk head rivet of diameter 30 mm keeping its axis vertical
   OR
   Sketch freehand the front view & top half sectional front view & side view of a Woodruff Key in position in a shaft of diameter 30 mm.

3. (a) fig shows the details of the parts of Gib and Cotter Joint. Assemble these parts correctly and draw to full size scale the following views:-
   (i) Front view, upper half in section
   (ii) Top view
   Write heading & scale used. Draw projection symbol. Give eight important dimensions.