

CLASS: XII**E.D****ASSIGNMENT NO: 1**

1. A right regular square pyramid of 25 mm base edges & 40 mm height is placed centrally on the top of a cube of 40 mm edges. Draw the isometric projection of the two solids.
2. A right regular hexagonal prism of base edges 20 mm & 60 mm height lies on one of its rectangular faces on HP. A right circular cone, base dia. 30 mm & ht. 35 mm rests centrally on the upper rectangular face on the prism. Draw the isometric projection of the combination.
3. A hexagonal prism of base edges 25 mm & 40 mm height is placed centrally on the top of a square block of sides 50 mm & height 25 mm. Draw the isometric projection of the combination.
4. A square plate of 90 mm sides & 30 mm thickness is placed on its square face on the HP with one edge parallel to VP. A right circular cone of base diameter 60 mm & axial height 70 mm is placed centrally on the top face of the plate. Draw the isometric projection of the combined solid.
5. A square plate of 90 mm sides & 30 mm thickness is placed on its square face in the HP, one side parallel to VP. The frustum of a right circular cone, base diameter 60 mm, top diameter 40 mm and axial height 60 mm is placed centrally on its bigger circular face on the top face of the plate. Draw the isometric projection of the combination.
6. A regular hexagonal prism plate of 45 mm sides & 30 mm thickness is placed on its hexagonal face in the HP with the rectangular face parallel to VP. A regular pentagonal prism base side 30 mm, axial height 60 mm is resting centrally on its pentagonal face on the top face of the plate, one edge of the pentagonal face being parallel to VP and nearer to it. Draw the isometric projection of the combined solid.
7. An equilateral triangular plate of 90 mm sides & 30 mm thickness is placed on its triangular face on HP with one base edge parallel to VP, and nearer to it. A right regular pentagonal pyramid of base edges 30 mm & axial height 60 mm is resting centrally on its pentagonal face on the top face of the plate, one edge of pentagonal face being parallel to VP and nearer to it. Draw the isometric projection of the combination.
8. A frustum of a regular hexagonal pyramid bigger & smaller sides of hexagonal ends 40 mm & 30 mm respectively & axial height 60 mm is resting on its bigger hexagonal face in the HP one edge being parallel to VP. A right circular cylinder of base dia. 40 mm & axial height 30 mm is placed centrally on its circular ends on the top face of the frustum. Draw the isometric projection of the combination.
9. An equilateral triangular plate of 90 mm sides & 25 mm thickness is placed on its triangular face in the HP, one edge being parallel to VP & nearer to it. A right regular hexagonal pyramid of base edges 30 mm & axial height 60 mm is placed centrally on its hexagonal end on the top face of the plate, one edge being parallel to VP. Draw the isometric projection of the combined solid.
10. A pentagonal prism with sides 40 mm & height 80 mm is centrally placed with its pentagonal end on the top circular face of a cylindrical disc with a diameter of 100 mm & thickened 40 mm. one side of the pentagonal end at the bottom is normal to VP & the common axis is normal to HP parallel to VP. Draw the isometric projection of the two solids placed together. Give all dimensions.
11. A regular hexagonal prism of base sides 30 mm and length 100 mm is resting on one of its rectangular faces on the HP, with its axis parallel to HP & VP. A cylinder of base diameter 42 mm and height 65 mm, with its axis perpendicular to HP is resting centrally on it. Draw the isometric projection. Give all dimensions.
12. A frustum of an equilateral triangular pyramid, base sides 58 mm, top side 32 mm & height of frustum 65 mm is having a base side parallel to VP & nearer to observer. It is centrally placed on the top of a cylindrical disc of base dia. 90 mm & height 48 mm resting on its base on HP. Draw the isometric projection keeping their common axis vertical. Give all dimensions.
13. A hemisphere of diameter 84 mm is having its circular face parallel to HP on the upper side. A equilateral triangular prism of base side 40 mm & length 50 mm with its axis perpendicular to VP resting centrally on it on one of its rectangular faces. Draw its isometric projection.
14. A hemisphere of dia. 84 mm is having its circular face parallel to HP on the upper side. A regular pentagonal prism of base side 24 mm & height 55 mm is resting centrally on it, with a base side away from the observer parallel to VP & their common axis perpendicular to HP. Draw the isometric projection.
15. A pentagonal prism with side 40 mm & height 80 mm is centrally placed with its pentagonal end on the top circular face of cylindrical disc with a diam. 100 mm & thickness 40 mm. one side of the pentagonal end at the bottom is normal to VP & the common axis is normal to HP & parallel to VP. Draw the isometric projection of the two solids placed together. Give all dimensions.
16. A cone of base dia 50 mm & height 80 mm is centrally placed with its circular base on the square top face (top side 60 mm) of the frustum of a square pyramid (bottom side 80 mm) & 70 mm height. Keeping the common axis vertical & 2 parallel sides of the bottom surface of the frustum parallel to VP, draw the isometric Projection of the solids placed together. Give all dimensions.

17. A pentagonal prism with side of the pentagonal base & height of axis 30 mm is resting on its base on HP with one of its sides normal to VP. On the top pentagonal end a cylinder of 50 mm dia base & 70 mm height is centrally placed with its circular base on it. Taking their common axis perpendicular to HP draw the isometric Projection of the solids. Give all dimensions.
18. The frustum of a square pyramid with top edges 20 mm, bottom edges 40 mm & height 50 mm. placed centrally on the top of a circular disc of dia 70 mm & height 30 mm. draw the isometric Projection.
19. Draw the isometric Projection of a sphere of radius 20 mm placed centrally on the top face of the frustum of a right cone, top face 40 mm dia. Base 70 mm, dia & height 50 mm resting on its circular base on the ground.
20. A regular hexagonal prism of 25 mm base edges & 60 mm axis is mounted centrally on its rectangular face on the top face of a circular disc of 90 mm dia & 35 mm height. Draw the isometric Projection of the combined solid.