6. Develop the lateral surface of a hopper having its top opening in the form of a regular hexagon 400mm side and the bottom opening 400 mm diameter. The axial height is 600mm. Draw only one-half of development. Scale 1:10.

(15 Marks)

- 7. A pentagonal pyramid, side of pentagon 30mm and height 80mm is resting on HP on one of its base edges such that the triangular face containing that edge is parallel to VP. Draw the projections of the pyramid. (20 Marks)
- 8. A square prism of 30mm side of base and height 60mm rests with one of its edges of the base on HP such that the axis is inclined at  $40^0$  to HP and  $30^0$  to VP. Draw the top and front views of the prism. (20 Marks)
- 9. A hemisphere of 40mm diameter is placed centrally on the top of a frustum of a hexagonal pyramid of 30mm side of base and 20mm side at the top and the axis is 40mm long. The circular flat face of the hemisphere is at the top. Draw the isometric projection of the solids using the isometric scale. (20 Marks)

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ABC is an equilateral triangle of pater of some sides. It is he wont there.

BC on HP which is making he draft and VP. To dead were AB and AC
measure 30mm in the top view. Determine the slope and on the plate with

makes an angle 600 with HP and two edges of the feet and allose make equa-

TOS ASTE WE to digue.

HP. Draw the projections of the plate.

A thin circular plate of 60mm distracter having a translature sides in the middle is resting on its rim on 110 in a case to

inclinations with HP and VP. Draw the manner of the

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