Q-1: Attempt any 3 of the following   **(30 MARKS)**

a) A circle of 40 mm diameter rolls along a straight line without slipping. Draw a curve traced by point on the circumference for one complete revolution of circle.

b) The F.V. of the line AB measures 50 mm and makes an angle of 45^0 with the XY line. The point A is 10 mm above the H.P. and 20 mm in front of V.P. Draw the projection of line AB if it is inclined with the V.P. at 45^0

c) A pentagonal pyramid base edge 25 mm and slant edges 60 mm long is resting on one of its base corners with its axis inclined at 30^0 to the H.P. Draw its projection if the base side opposite to the base corner on the H.P. makes an angle of 40^0 to the V.P.

d) A Hexagonal prism side of base 40 mm, axis height 90 mm has its two side of base parallel to V.P. A section plane, cut thlee prism such that section plane passes through extreme left bottom corner to extreme right top corner of prism, Show the development of lateral surface of cut prism