

**Code : 021202****2012****ENGINEERING GRAPHICS**

Time : 3 hours

Full Marks : 70

**Instructions :**

- (i) All questions carry equal marks.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt any **FIVE** questions.
- (iv) Question No. 1 is compulsory.

1. Answer as directed any seven from the following :

- (a) Name the two principal planes of projection.
- (b) Projector of a point is always — to the reference line.  
(Fill in the blank)

(c) True inclinations of a line are always greater than the apparent inclinations in projections.  
(Write True or False)

(d) Name any two methods to draw the projections of a line placed inclined to both HP and VP.

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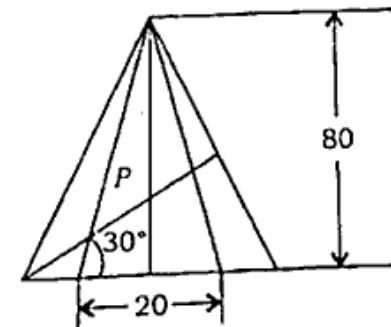
**( 3 )**

A right regular hexagonal prism edge of base 30 mm and axis 65 mm is held in such a way that one edge of its base remains parallel to HP and inclined at 45 degree to VP. The axis makes an angle of 60 degree to HP. Draw its projection.

6. A right regular pentagonal pyramid side of base 30 mm and height 65 mm rests on HP on one of its triangular faces such that its axis is parallel to VP. A section plane perpendicular to VP and inclined to HP at 60 degree cuts the pyramid meeting its axis at a distance of 35 mm from the vertex. Draw its front view, sectional top view and true shape of section. http://www.akubihar.com

7. Draw the isometric projection of a sphere of 20 mm diameter resting centrally on the top of 50 mm square prism, 20 mm high.

8. Draw the development of the lateral surface of a part P of a hexagonal pyramid, two sides of the base are parallel to the VP. The front view of which is shown in the figure given below :



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( 4 )

9. Describe the functions of the following commands used in AUTOCAD drawing with suitable examples :

- (a) Boundary hatch (Bhatch)
- (b) Change
- (c) Extrude
- (d) Offset
- (e) Viewports (Vports)

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