SATHYABAMA UNIVERSITY
(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E - ECE/ETCE
Title of the paper: Engineering Graphics
Semester : I   Max. Marks: 80
Sub.Code: 5ET219   Time: 3 Hours
Date: 15-05-2007   Session: FN

<div align="center">

PART – A   (10 x 2 = 20)
Answer ALL the Questions
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1. What is an involute?

2. What are projectors?
3. Define horizontal trace(HT) of a line.
4. If a line is inclined to a plane, its view on that plane will give true length(True/False)
5. Define pyramid.
6. What is the purpose of sectioning?
7. What is meant by true shape of the section?
8. Mention the applications of development of surfaces.
9. Give the ratio between the isometric length to true length.
10. Define picture plane.

<div align="center">

PART – B   (5 x 12 = 60)
Answer All the Questions
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11. A line AB of 80 mm long, inclined at 35° to HP and 40° to VP. The end A is 20 mm infront of VP and 15 mm above HP. Draw the projections of the line.

<div align="center">(or)</div>

12. AB is a straight line whose front view measures 60 mm and makes an angle of 45° with the XY line, The end A is in HP. The vertical trace of the line is 10 mm below XY. The top view is inclined at 30° to XY. Draw the projections, locate its traces. How far the end A is from VP ?

13. An hexagonal pyramid of base side 30 mm and axis 70 mm is lying on HP on one triangular face, the axis being parallel to VP. Draw front and top view.

(or)

14. A square prism of base 30 mm side and axis 80 mm long stands with one of its base edges on HP such that the axis is inclined at 30° to HP and 40° to VP. Draw its projections.

15. Section plane perpendicular to VP and inclined at 40° to HP, cuts the axis of the cone standing vertically at a distance of 20 mm from the base. Draw its front view, sectional top view and true shape of the section .The base diameter is 30 mm and axis height is 75mm.

(or)

16. A pentagonal pyramid of base 30 mm and height 80 mm stands vertically with one base edge parallel to VP. It is cut by a plane inclined at 45° to HP bisecting the axis. Draw the development.

17. A Cone of base diameter 40mm and axis 60mm is mounted centrally on the top of a square slab of side 60mm and thickness 15mm.Draw the isometric projection of the solids.

(or)

18. A rectangular prism 30 x 60 x 85 mm is placed on the ground behind the picture plane with the longest edges vertical and shortest edge receding to the left at an angle of 40° to the PP. The nearest vertical edge is 10mm behind PP and 15 mm to the left of the observer who is at a distance of 80 mm in front of PP. The height of the observer above the ground is 120 mm. Draw the perspective view of the prism.

19. Draw the top view, front view, right side view and left side view of the objects shown in fig.1

DRAW DIAGRAM

(or)

20. Draw the top view, front view, right side view of the objects shown in fig.2

DRAW DIAGRAM