Exam. Code: 0906
Sub. Code: 33269

2055
B.E., Second Semester
ESC-X04: Engineering Graphics
(Common with MEC, CSE, IT, BIO)

Time allowed: 3 Hours **Max. Marks: 50**

NOTE: ***Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.***

x-x-x

Q1. (a) Differentiate between unidirectional and aligned system of dimensioning. 2*5=10

(b) Define the term "trace of a line". Show the trace of a line inclined to VP and parallel to HP.

(c) What is the difference between a 'Plane' and a 'Lamina'?

(d) What is a section plane? How is it represented in the drawing?

(e) Develop the surface of following solid: A truncated cylinder.

Section A

Q2. (a) Discuss the utility of 'Polygon' command in AutoCAD. 2

(b) A straight line AB, 80 mm long, is inclined at 40° to HP. Its end A is 12 mm above HP and end B is 52 mm in front of VP. Draw the projections of the line if its front view measures 66 mm. 8

Q3. A thin hexagonal plate of side 30 mm rests on one of its edges on HP with surface inclined at 50° to HP and perpendicular to VP. Draw the projections of the plate. 10

Q4. A triangular prism of side of base 25 mm and length of axis 70 mm is resting on HP on one of its rectangular faces with its axis inclined at 40° to VP. Draw its projections. 10

Section B

Q5. A pentagonal pyramid, side of base 30 mm and height 60 mm is resting on its base on HP with one of its base edge parallel to VP. A section plane perpendicular to VP and inclined at 45° to HP passes through the axis at a point 35 mm above the base. Draw the sectional top view and true shape of the section. 10

Q6. A triangular pyramid, side of base 35 mm and height 60 mm stands on its base on HP. A section plane perpendicular to VP and inclined at 30° to HP bisects the axis of the pyramid. Develop the lateral surface of the truncated pyramid. 10

Q7. A rectangular prism of base 40 mm and height 65 mm rests on HP with its axis horizontal. A cone of base diameter 30 mm and height 45 mm rests centrally on the top rectangular surface of the prism with its axis vertical. Draw the isometric projection of the solids. 10

x-x-x