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**MANIPAL INSTITUTE OF TECHNOLOGY**  
 Manipal University, Manipal – 576 104  
 Dept. of Mechanical & Manufacturing Engg.



**II SEM. B.E. DEGREE END SEMESTER EXAMINATIONS MAY/JUNE 2007**  
**SUBJECT: ENGINEERING GRAPHICS (MEE-103/MEE-104)**  
**REVISED CREDIT SYSTEM**  
**( 05/ 06/ 2007)**

Time: 3 Hours.

MAX.MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ANY FIVE FULL** questions.
- ❖ Missing data, if any, may be suitably assumed.

- 1A) The left view of a line AB 80 mm long, makes an angle of 40° to the XY line. Draw the top and front views of the line when the length of the left view is 50mm. Take the point A to be 15mm above HP and 60mm in front of VP and the point B being nearer to VP. (05)
- 1B) Draw the projections of an isosceles triangle of base 40mm and sides 60mm when it rests with on HP and one of its sides lying in VP and the base on which it rests is inclined at 30° to VP. (05)
- 2) A regular pentagonal pyramid of side of base 30mm and slant edge 75mm long is resting with its slant edge on VP, in such a way that both the triangular faces containing that edge are equally inclined to VP. The slant edge touching VP makes 45° with HP. Draw the top view and front view by **change of position method**. (10)
- 3) A right circular cone with a base diameter of 50mm and axis 80mm long is resting on the HP with its axis inclined to the H.P. in such a way that the apex of the cone is 70mm above the HP. If the axis of the cone is parallel to the profile plane, draw its projections by **Auxiliary plane method**. (10)
- 4) A cylinder base 40mm diameter and axis 58mm long, rests with a point of its base circle on HP. Its axis is inclined at 45° to HP. and parallel to VP. A section plane perpendicular to both the HP. and the VP. bisects the axis of the cylinder. Draw its front, top and sectional side views. (10)
- 5) A vertical cylinder of 80 mm diameter and 100mm high has a square through slot of 25mm sides is cut centrally such that the axis of the slot bisects the axis of the cylinder at right angles and perpendicular to VP. The sides of the slot are equally inclined to HP. Develop the lateral surface of the cylinder showing the true shape of the slot on it. (10)

- 6) A regular pentagonal prism of base edge 30mm and axis 60mm is mounted centrally over a cylindrical block of 80mm diameter and 25mm thick with one of the base edges parallel to VP. Draw the isometric projection of the combined solids.

(10)