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Code No: ME2501

GEC-R17

I B. Tech I Semester Regular Examinations, December 2017

ENGINEERING DRAWING

(Civil Engineering)

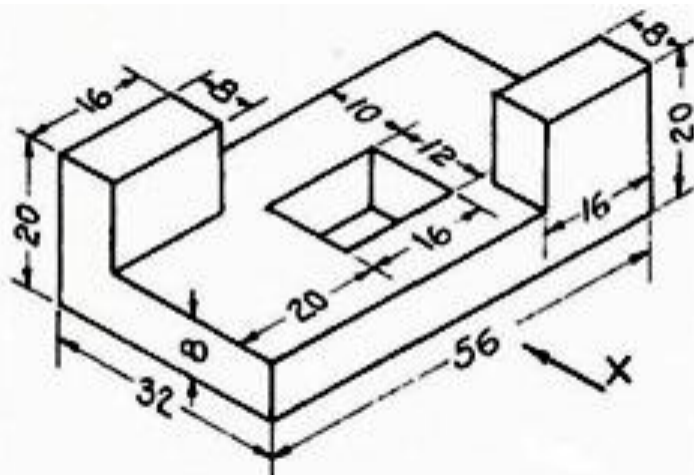
Time: 3 Hours

Max. Marks: 60

Note: Answer any FIVE questions. All Questions carry equal Marks.

$5 \times 12 = 60M$

1. Draw a conic section whose eccentricity is unity and the distance from focus to directrix is 50 mm and also draw a tangent and normal to the curve at a point 80 mm from directrix. (12M)
2. a) The top view of a 75 mm long line measures 55 mm. The line is in VP, its one end being 25 mm above HP. Draw its projections. (6M)
b) A point P is 15mm above HP and 20 mm in front of VP. Another point Q is 25 mm behind VP and 40 mm below HP. Draw the projections of P and Q keeping the distance between their projectors equal to 90 mm. Draw straight lines joining i) their top views and ii) their front views. (6M)
3. The front view of a line AB measuring 75 mm long is 55 mm and its top view is 65 mm long. Its end A is 30 mm from both the planes. Draw the projections and find its inclinations with the reference planes. (12M)
4. A thin 30^0-60^0 set square has its longest edge in VP and inclined at 30^0 to HP. Its surface makes angle of 45^0 with VP. Draw the projections. (12M)
5. a) A hexagonal prism has one of its rectangular faces parallel to V.P. Its axis is perpendicular to H.P and 35 mm in front of VP. Draw the projections when side of base is 25mm long and axis is 50 mm long. (6M)
b) A square pyramid with base 40 mm side axis 65 mm long has its base in the V.P. One of the edge of the base is inclined at 30^0 to H.P. and corner contained by that edge is on H.P. Draw its projections. (6M)
6. With reference to the direction of X draw the front view, top view and side view of the following figure. All dimensions are in mm. (12M)



7. a) A square plane of side 30 mm is parallel to HP and 20 mm away from it. Draw the projections when two of its sides are inclined at 30° to VP. (6M)
- b) An equilateral triangle of side 40 mm has its plane parallel to VP and 10 mm in front of VP. Draw the projections of the plane when one of its sides is inclined at 45° to HP. (6M)
8. A regular hexagonal pyramid, base 25mm side, axis 50mm long is resting on the HP on one of its edges of the base. Its axis is parallel to the VP and inclined at 30° to the HP. Draw the projections. (12M)
