

C 60705

(Pages : 2)

Name.....

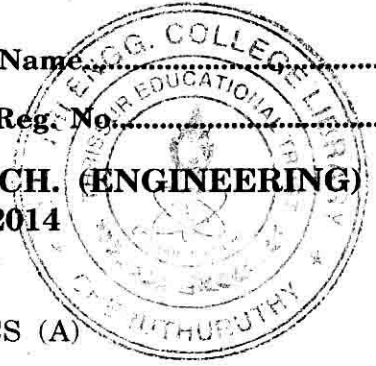
Reg. No.....

**COMBINED FIRST AND SECOND SEMESTER B.TECH. (ENGINEERING)
DEGREE EXAMINATION, APRIL 2014**

(2009 Scheme)

EN 09 108(A)—ENGINEERING GRAPHICS (A)

(Common to A&E, AN, AU, BT, EC, EEE, IC, PE, PT)



Time : Three Hours

Maximum : 70 Marks

Answer **three** questions from Part A and any **two** questions from Part B.

All questions carry equal marks.

Part A

1. (a) A line EF, 75 mm long has its end E, 25 mm. about the HP and 20 mm. in front of the VP. The line is inclined at 50° to the HP and 30° to the VP. Draw the projections of the line and find the traces of the line.

Or

- (b) Draw the projections of a line AB, 90 mm long, its mid-point M being 50 mm above the H.P. and 40 mm in front of the V.P. The end A is 20 mm above the H.P. and 10 mm in front of the V.P. Show the traces and the inclinations of the line with the H.P. and the V.P.
2. (a) Draw the projections of a cone, base 30 mm. diameter and axis 50 mm. long, resting on HP on a point of its base circle with the axis making an angle of 45° with HP and its top view making an angle of 30° with V.P.

Or

- (b) A pentagonal pyramid of base 35 mm side and axis 60 mm height is lying on the ground on its base with a base edge parallel to the V.P. it is cut by a plane perpendicular to the H.P. and inclined at 45° to the V.P. and passing through a point 8 mm away from the axis. Draw sectional elevation and add an auxiliary sectional view on a plane parallel to the section plane.
3. (a) Draw the development of the lateral surface of a right regular hexagonal pyramid of side 40 mm. and height 100 mm. It stands in its base of HP with one of its base edges parallel to V.P. A circular hole of diameter 40 mm. is drilled through the pyramid in such a way that the arch of hole is perpendicular to VP and 30 mm. above the base. Assume that the axes of intersect each other.

Or

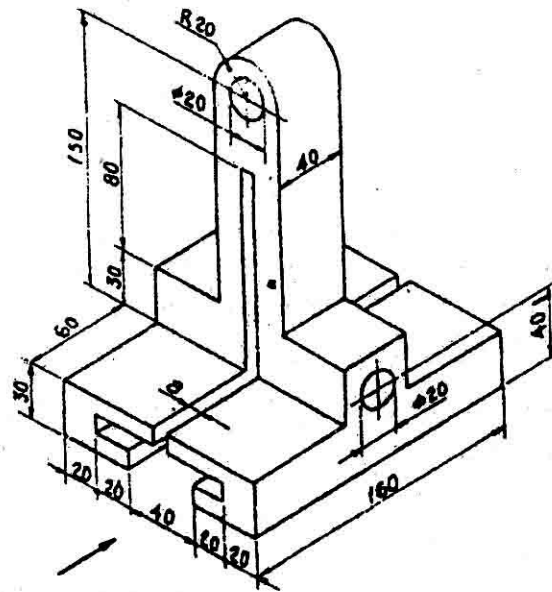
- (b) Draw the development of Elbow pipe of diameter 50 mm.

(3 × 14 = 42 marks)

Turn over

Part B

4. A frustum of a square pyramid of bottom base 30 mm. side, top face 45 mm side and height 30 mm. is placed centrally over a square prism of side 45 mm. and axis height 10 mm. On the top of the frustum a sphere of radius 40 mm. is placed centrally. Draw the isometric projection of the combined solids.
5. A pentagonal pyramid of 25 mm. base side and axis height 40 mm is standing on its base on the ground plane with a base side parallel to and 30 mm. behind PP. The central plane is 30 mm. to the left of the apex and the station point is 45 mm. in front of PP and 20 mm. above the ground plane. Draw the perspective view of the pyramid.
6. Draw the dimensioned orthographic views (all three) of the object shown in Figure. below.



(2 × 14 = 28 marks)