Date: 29/12/2016 Exam No: _____

GANPAT UNIVERSITY

B. TECH SEM-I&II NEW CBCS Regular & Remedial EXAMINATION–

NOV-DEC 2016

Subject Code: 2ME102 ENGINEERING GRAPHICS

TIME: 3 HRS **TOTAL MARKS: 60**

Instructions: (1) This Question paper has two sections. Attempt each section in separate answer book.
(2) Figures on right indicate marks.
(3) All dimensions are in mm.
(4) Assume suitable dimensions are necessary.

SECTION: I

Q.1 In four bar chain mechanism O_1ABO_2, two cranks O_1A and O_2B are 40 mm and 100 mm long respectively and the connecting link AB is 130 mm long. Fixed link O_1O_2 is 160 mm long draw the locus of the point P, on AB and 40 mm from A, for one revolution of the driving crank O_1A. (10)

OR

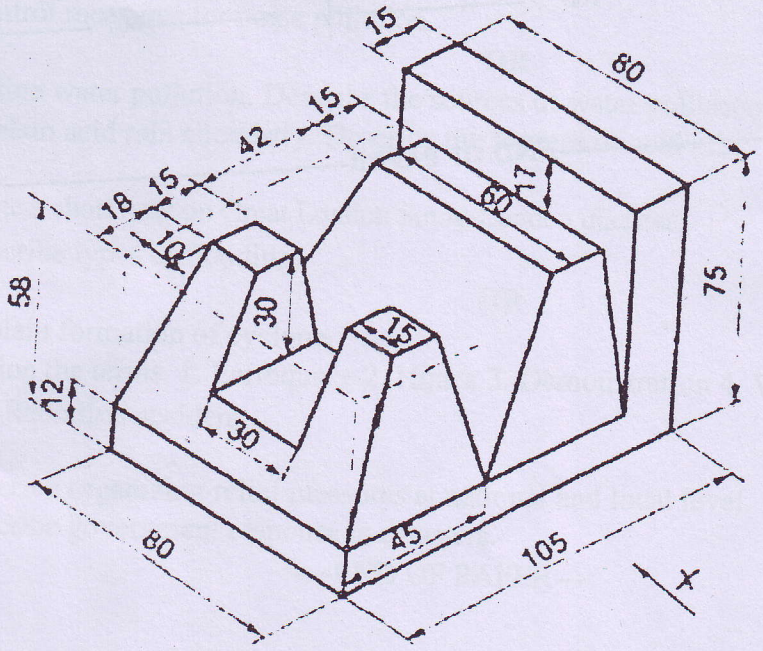
Q. 1 The major axis and minor axis of the ellipse are 125 mm and 75 mm respectively. Construct an ellipse using Oblong method. (10)

Q.2 A line MN, 75 mm long, has its end M 20 mm below H.P. and 25 mm behind V.P. The end N is 50 mm below H.P. and 65 mm behind VP. Draw the projection of line MN and find its inclination with H.P. and V.P. (10)

OR

Q.2 A semi circular thin plate, of 60 mm diameter, rest on the H.P. on its diameter, which is inclined at 45^0 to the V.P. and the surface is inclined at 30^0 to the H.P. draw the projection of the plate. (10)

Q.3 Draw the orthographic projection using 1st angle projection system.
(i) Front View (ii) Top View (iii) L.H.S.V. (10)



SECTION: II

Q.4 A pentagonal pyramid, side of base 30 mm and height 60 mm, stands on an edge of its base on the H.P. The edge makes an angle of 45^0 with the V.P. The slant face containing this edge of the base, makes an angle of 50^0 with the H.P. draw the projections of the pyramid keeping apex nearer to the observer. (10)

OR

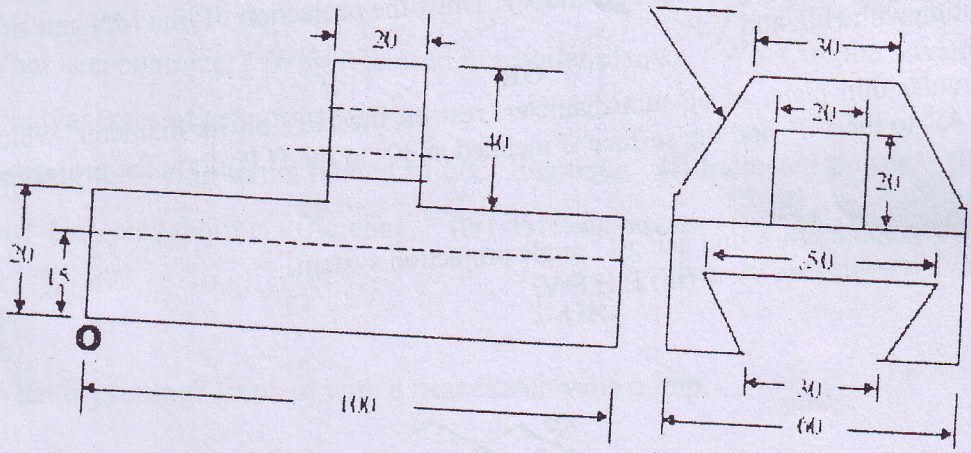
Q.4 A hexagonal prism is resting on H.P. on its base with two edges of base parallel to V.P. It is cut by A.I.P. perpendicular to V.P. and inclined to H.P. by 45^0 passing through a point of axis 40 mm above the base. Draw three principal projections and find the true shape of section. Take side of base 30 mm and height 55 mm. (10)

Q.5 The development of a cone is a semicircle of 80 mm radius having a circular hole of 80 mm diameter. Draw the plan and elevation of the cone along with periphery of a circular hole shown on them. (10)

OR

Q.5. A cylinder of 75 mm diameter is resting on H.P. on its base. It is penetrated by another cylinder of the same size. The axis of penetrating cylinder is parallel to H.P. and V.P. and is 10 mm away from the axis of the vertical cylinder and is further away from V.P. draw the projection showing the curve of penetration. (10)

Q.6 Draw the Isometric view of given two view of object (10)



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