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2006 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS

ENGINEERING DRAWING

(COMMON TO ELECTRICAL & ELECTRONIC ENGINEERING, ELECTRONICS & INSTRUMENTATION ENGINEERING AND ELECTRONICS & COMPUTER ENGINEERING)

MAY-JUNE 2006

Time: 3 hours
Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Inscribe an ellipse in a parallelogram having sides 150mm and 100mm long and an inclined angle of 120° .

(b) Draw a rectangle having its sides 125mm and 75mm long. Inscribe two parabolas in it with their axis bisecting each other. [8+8]
2. Draw a hypo cycloid of a circle of 30mm diameter which rolls inside another circle of 160mm diameter, for one revolution counter clock wise. Draw a tangent and a normal to it at a point 60mm from the center of the directing circle. [16]
3. Draw the projections of the following points on the same ground line, keeping the Projectors 20mm apart.
(a) Point C, in the V.P. and 40mm above the H.P.
(b) Point D, 25mm below the H.P. and 25mm behind the V.P.
(c) Point E, 15mm above the H.P. and 50mm behind the V.P.
(d) Point F, 40mm below the H.P. and 25mm in front of the V.P. [4×4]
4. A line AB of 70mm long, has its end A at 10mm above H.P. and 15mm in front of V.P. Its front view and top view measure 50mm and 60mm respectively. Draw the projections of the line and determine its inclinations with H.P. and V.P. [16]
5. Draw the projections of a circle of 60 mm diameter, resting on V.P. on a point on the circumference. The plane is inclined at 45° to V.P. and perpendicular to H.P. The centre of the plane is 40mm above H.P. [16]
6. (a) Draw the projections of
 - i. a cylinder, base 40 mm diameter and axis 50 mm long, and
 - ii. a cone, base 40mm diameter and axis 50mm long, resting on the H.P. on their respective bases.(b) A hexagonal prism has one of its rectangular faces parallel to the H.P. Its axis is perpendicular to the V.P. and 3.5 cm above the ground. Draw its projections when the nearer end is 2 cm in front of the V.P. Side of base 2.5cm long, axis 5 cm long.
(c) A cube of 40mm side rests with one of its square faces on the H.P. such that one of its vertical faces is perpendicular to V.P. Draw its projections. The nearest edge parallel to V.P. is 5mm in front of it
7. Draw the isometric view of the ribbed angle plate. [16]
8. Draw the elevation, plan, left and right side views of the part .
[16]