R09

Code No: 51014

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year Examinations, June – 2015

ENGINEERING DRAWING

(Computer Science and Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any five questions

All questions carry equal marks

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1. Construct a hyperbola, with the distance between the focus and the directrix as 50 mm and eccentricity as 3/2. Also, draw normal and tangent to the curve at a point 30 mm from the directrix. [15]

2.a) The end A of a line AB is in the H.P. and 25 mm in front of the V.P. The end B is in the V.P. and 50 mm above the H.P. The distance between the end projectors is 65 mm. Draw the projections of AB and determine its true length.

b) Draw the projections of a 100 mm long line AB, when end A touches VP and end B touches HP. The line is inclined at 30^0 to HP and 50^0 to VP. Draw the projections of the line and locate HT and VT. [7+8]

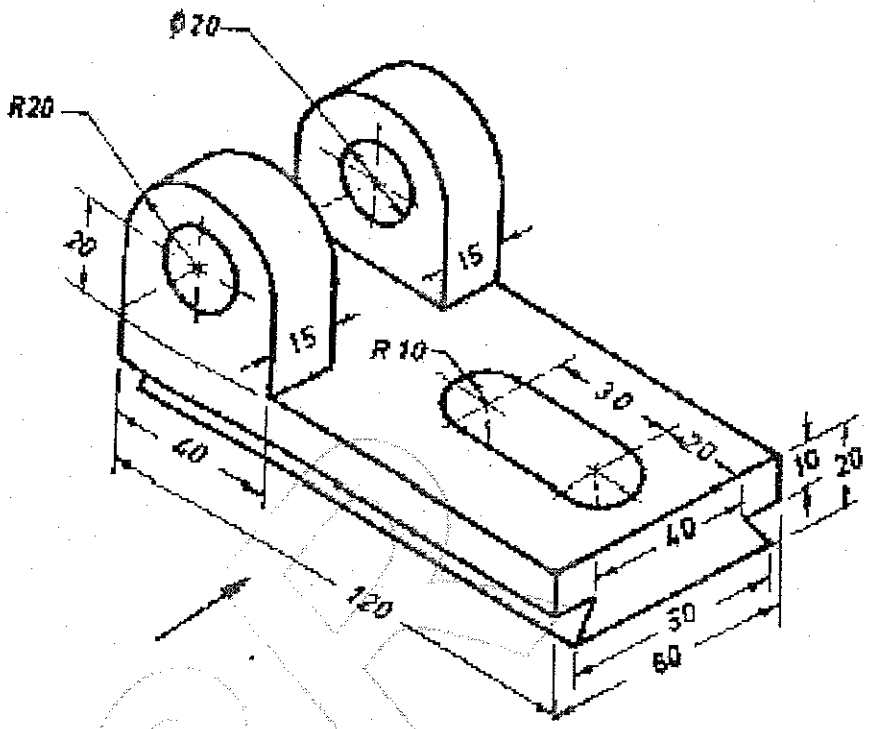
3. A thin 30^0-60^0 set - square has its longest edge in the V.P. and inclined at 30^0 to the H.P. Its surface makes an angle of 45^0 with the V.P. Draw its projections. [15]

4. A hexagonal pyramid of base edge 20 mm and height 40 mm rests on one of the corners of the base in HP with its axis is inclined at 30^0 to HP and parallel to VP. A vertical section plane inclined at 30^0 to VP cuts the pyramid removing 15 mm length of the axis from apex. Draw the projections of the pyramid and find the true shape of the section. [15]

5. A square prism, 30 mm side penetrates the vertical cylinder 50 mm diameter. The axes of both the solids bisect each other at right angle. The axis of square prism is parallel to both the reference planes. Draw and show curves of penetration.[15]

6. Draw the isometric view of a Pentagonal Pyramid, with side of base 25 mm and axis 60 mm long, when
   a) The pyramid is resting on its base on HP.
   b) The pyramid is resting on its base on VP. [7+8]

7. Draw the following views of the dove tail bracket given in figure below. (All dimensions are in mm).
a) Front View
b) Top View and
c) Side View. [6+6+3]



8. Draw the perspective projection of a straight line AB, 60mm long is parallel to and 10mm above the ground plane and inclined at 45^0 to PP. The end A is 20mm behind the picture plane. Station point is 35mm in front of the picture plane and 45mm above the ground plane and lies in a central plane passing through the mid-point of AB. [15]

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