

Code No: R10205/R10

Set No. 1

**I B.Tech II Semester Supplementary Examinations, February 2013
ENGINEERING DRAWING**

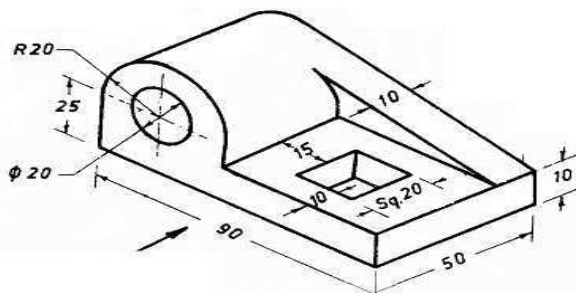
(Common to BME,CE,ME,CHEM,AE,AME and PT)

Time: 3 hours

Max Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

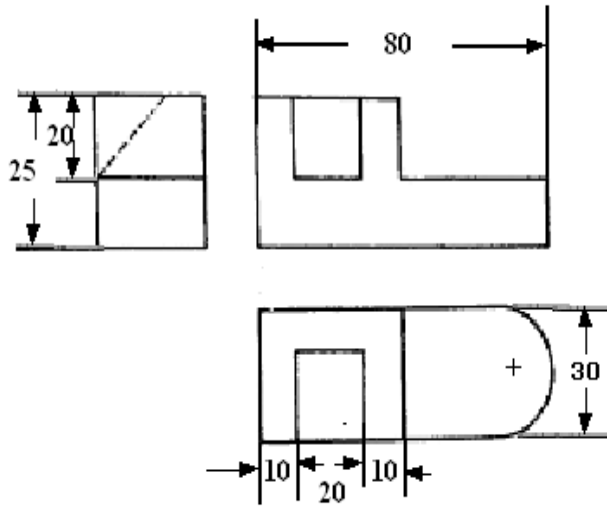
1. A rectangular plot of land of area 45 00 Sq.m is represented by a rectangle of 5 sq. cm. Calculate the R.F of the scale of the map. Construct a diagonal scale to read upto maximum of single km from the map. The scale should be long enough to measure upto 500 m. [15]
2. (a) A line AB 50 mm long is in VP and parallel to the profile plane. The end A is 20 mm above HP. Draw all the three principal views.
(b) A point 30 mm above XY line is the front view of two points E and F. The top view of E is 40 mm behind VP, and the top view of F is 50 mm in front of VP. Draw the projections of the two points and state their positions with reference planes and quadrants in which they lie. [8+7]
3. End A of a line AB is 20 mm above HP and 30 mm in front of VP. The top view of the line is inclined at 40° to VP and end B is 50 mm in front of VP. If the line is inclined at 30° to HP draw the projections of the line, find true length of the line and its inclination with VP. [15]
4. An triangular lamina of 30 mm sides rests on one of its corners on HP such that the median passing through the corner on which it rests is inclined at 30° to HP and 45° to VP. [15]
5. A Hexagonal prism of side 20 mm and 60 mm long is laying on the ground with one of its rectangular faces, the axis is inclined at 60° to VP .Draw its projections [15]
6. A square pyramid of 50mm side of base and 50mm length of axis is resting on one of its triangular faces on the HP having slant edge containing the face parallel to the VP. Draw the projections of pyramid. [15]
7. Draw the front view, top view, and side view from the following figure.



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8. Draw the isometric view of the block as shown in figure.



FirstRanker

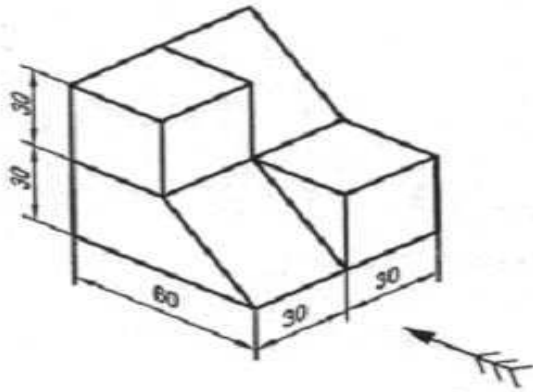
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Set No. 2**I B.Tech II Semester Supplementary Examinations, February 2013
ENGINEERING DRAWING****(Common to BME,CE,ME,CHEM,AE,AME and PT)****Time: 3 hours****Max Marks: 75****Answer any FIVE Questions
All Questions carry equal marks**

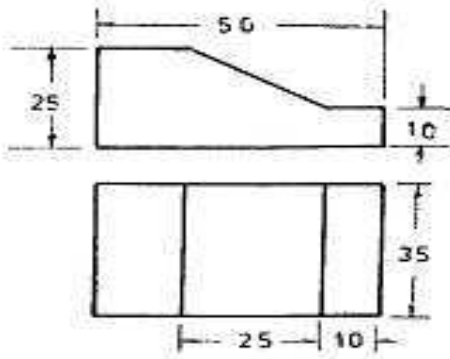
1. The distance between Hyderabad and Vijayawada is 352 km. On a map it is represented by a line of length 70.4 mm. What is the R.F to which the map has been drawn? Draw a diagonal scale of the RF to read upto one kilometer and long enough to measure 800 km. Mark on the scale the following distances: 549 km and 207 km. [15]
2. Draw the projections of a straight line AB, 60 mm long, in the following positions
 - (i) Perpendicular to the HP, 20mm in front of the VP and one end 25mm above the HP.
 - (ii) Perpendicular to the VP, 30mm above the HP and one end in VP.
 - (iii) Parallel to both the HP and VP and 30mm from each.
 - (iv) Parallel to and 20 mm above the HP and in the VP.
 - (v) Parallel to and 30 mm in front of the VP and in the HP. [5x3=15]
3. The mid point of a line AB is 60mm above HP and 50mm in front of VP. The line measures 80mm and is inclined at 30° to HP and 45° to VP. Draw its projections. [15]
4. A circular plate of diameter 65 mm has the end P of the diameter PQ in the H.P and the plate is inclined at 40° to the HP. Draw its projections when the diameter PQ appears to be inclined at 45° to the VP in the top view. [15]
5. A cylindrical block 75 mm diameter and 25 mm thick has hexagonal hole of 25 mm side cut centrally through its flat faces. Draw the top and front views of the block when its flat faces are vertical and inclined at 30° to VP and the two parallel faces of the hole are parallel to HP. [15]
6. A right circular cone of base diameter 30 mm and axis 45mm long rests with one of its generator on HP making 45° to the VP. Draw its projections. [15]
7. Draw three orthographic views to the following figure.

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Set No. 2



8. Draw the isometric view for the following orthographic views



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Set No. 3

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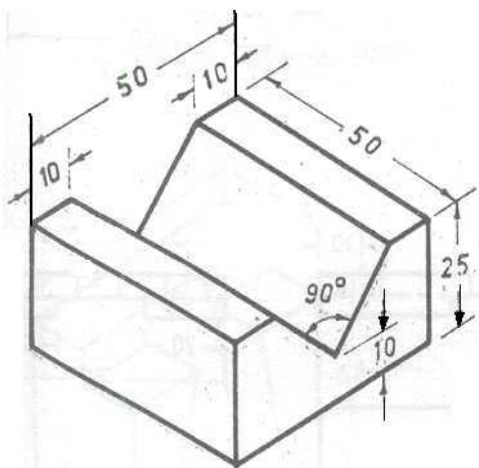
(Common to BME,CE,ME,CHEM,AE,AME and PT)

Time: 3 hours

Max Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

1. Construct a vernier scale of R.F =4 to show cm, $1/10^{th}$ of cm and $1/100^{th}$ of cm to read up to 10cm. Mark on the scale the lengths 4.82 cm, 6.25cm and 8.32cm. [15]
2. (a) Draw the projections of a line 70mm long when it is perpendicular to HP and parallel to VP and 15mm in front of VP.
(b) A line 70mm long is perpendicular to VP and parallel to HP and 20mm above it. Draw its projections. [7+8]
3. A line AB has its end A, 15 mm above the HP and 20 mm in front of the VP The end B is 40 mm in front of the VP. The front view of the line measures 70 mm. The distance between the end projectors is 50 mm. Draw the projections of the line and find its true length and its true inclinations with the VP and the HP. [15]
4. A circular plane of diameter 60 mm is touching the VP with a point on its circumference. The plane is inclined to 45° to V.P and perpendicular to HP the centre of the plane is 40 mm above HP. draw its projections. [15]
5. Draw the projections of a hexagonal prism of base 25mm and axis 60mm long, when it is resting on one of its corners of the base on H.P. The axis of the solid is inclined at 45° to HP. [15]
6. Draw the projections of a hexagonal pyramid, base 30 mm side and axis 60 mm long, having its base on the HP and one of its edges of the base inclined at 45° to the VP [15]
7. Draw the front, top, and side views of the isometric view given in figure.

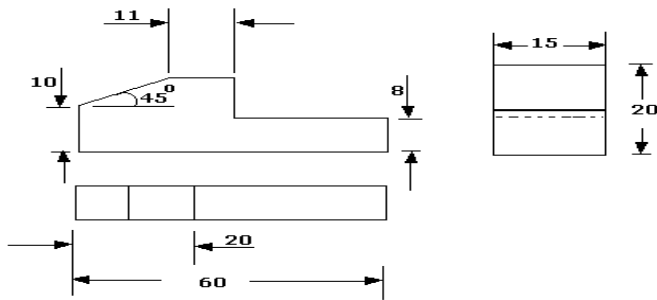


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8. Draw the isometric view for the following orthographic views.

[15]



FirstRanker

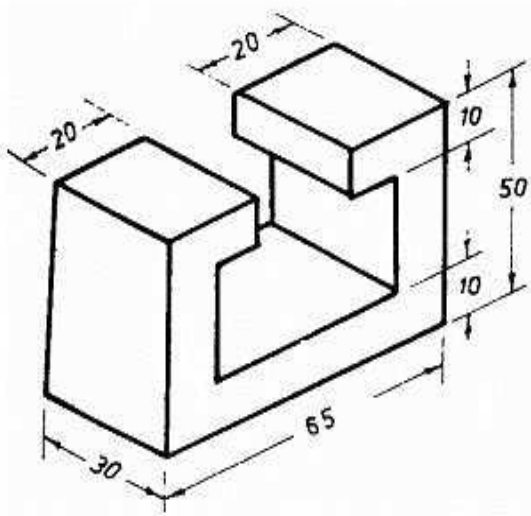
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Set No. 4**I B.Tech II Semester Supplementary Examinations, February 2013
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All Questions carry equal marks**

1. Construct a vernier scale of R.F =2 to show cm, $1/10^{th}$ of cm and $1/100^{th}$ of cm to read up to 12cm. Mark on the scale the lengths 6.82 cm, 2.25cm and 11.59cm. [15]
2. (a) A line LM is 65 mm long has its end L, 25 mm above HP and 35 mm in front of VP. The line is perpendicular to VP and parallel to HP. Draw its projection.
(b) Draw the projection of a line PQ 75 mm long parallel to both the reference planes and lying 25 mm above HP and 30mm in front of VP. [7+8]
3. The front view of a line PQ measuring 110 mm long is 70 mm and its top view is 90 mm long. Its end B is 35 mm from the both the planes. Draw the projections and find its inclinations with the reference planes. [15]
4. (a) circular lamina of diameter 60 mm is held vertical with its surface inclined at 45^0 to the VP. Its centre is 45 mm above the HP and 35 mm in front of the VP. Draw its top and front views.
(b) A pentagonal plate of side 30 mm rests on HP on one of its sides perpendicular to the VP. Draw its projections when its surface is inclined at 45^0 to the HP. [8+7]
5. A square prism, side of base 35 mm and height 50 mm rests with its base on HP. Such that one of its rectangular faces is inclined at an angle of 30^0 to VP. Draw its projections. [15]
6. A triangular pyramid base 35mm side and axis 60mm rests with one of its inclined lateral edges on HP such that two triangular faces containing the inclined edge on which it rests make equal inclinations with HP. Draw the projections of the pyramid. [15]
7. Draw orthographic projections from the following isometric figure. [15]

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Set No. 4



8. Draw the isometric view of the following figure.

[15]

