

**Subject Code-: R10205/R10**

**Set No - 1**

**I B.Tech II Semester Regular Examinations June - 2012**

**ENGINEERING DRAWING**

**(Common to Computer Science & Engineering, Electronics & Instrumentation Engineering,  
Electronics & Computer Engineering)**

**Time: 3 hours**

**Max. Marks : 75**

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

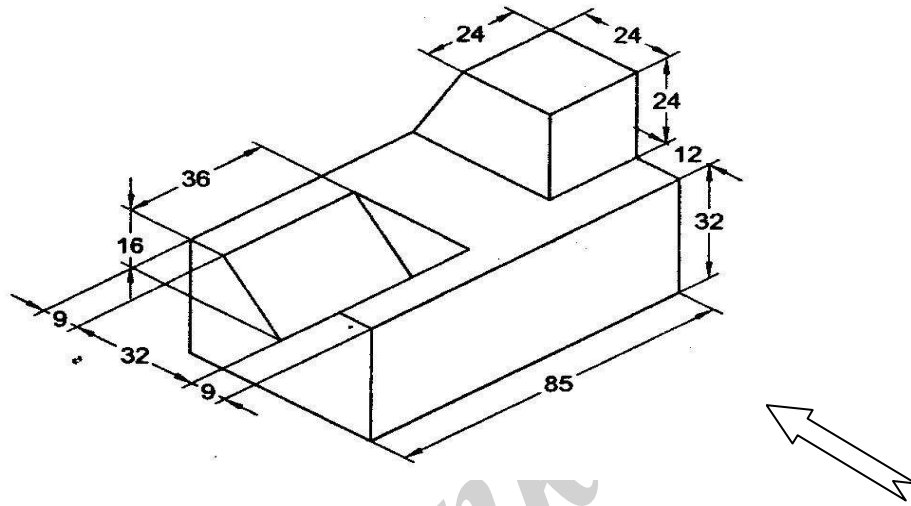
**\* \* \* \* \***

- 1.(a) Draw a hexagon of side 40mm with a diagonal inclined at  $45^{\circ}$  to horizontal.  
(b) A line 10cm long in a building plan represents a distance of 5m. Draw a diagonal scale to read up to 6m, showing meters, decimeters and centimeters .Mark the Lengths 3.24m and 5.57m.  
[5M + 10M]
2. Draw the projections of a straight line AB, 50mm long, in the following positions:  
(i) Parallel to both the HP and VP and 25mm from each.  
(ii) Parallel to and 25mm above the HP and in the VP.  
(iii) Parallel to and 25mm in front of the VP and in the HP.  
(iv) Perpendicular to the HP, 20mm in front of the VP and one end 15mm above the HP  
(v) Perpendicular to the VP, 35mm above the HP and one end in VP  
[3M + 3M + 3M + 3M + 3M]
3. A 70mm long line CD has its end C 20mm above HP and 30mm in front of VP. Draw the projections if the line is inclined at  $30^{\circ}$  to HP and  $30^{\circ}$  to VP.  
[15M]
4. A hexagonal lamina of a 25mm side has its surface inclined at  $30^{\circ}$  to HP. Its one side is parallel to HP and inclined at  $45^{\circ}$  to VP. Draw its projections.  
[15M]
5. A cylinder of base diameter 30mm and axis length 50mm is resting on HP on a point of base and its axis inclined at  $45^{\circ}$  to HP and parallel to VP. Draw the projections.  
[15M]
6. A pentagonal pyramid of base edge 25mm and axis 60mm long rests on a base side on HP such that the highest base corner is 20mm above HP and its axis is parallel to VP. Draw its projections.  
[15M]
7. A sphere of 30mm diameter rests centrally on top of a square prism of base 60mm side and axis 30mm long. The prism is resting on a base on HP and all the lateral faces are equally inclined to VP. Draw the isometric projection of the composite solid.  
[15M]

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8. Draw the front view, top view and left side view of the block shown in figure(1) below.



Figure(1)

[15M]

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**Set No - 2**

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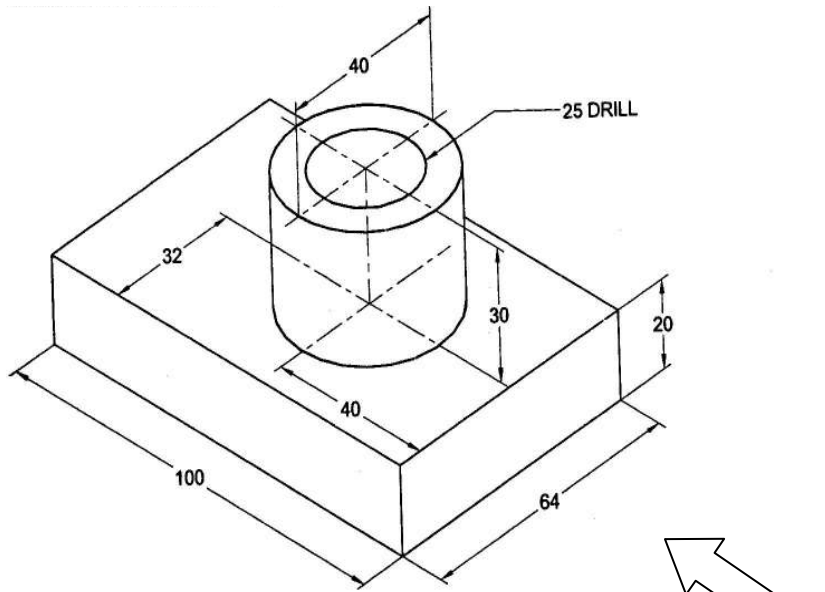
**\* \* \* \* \***

1. A distance of 30cm on a drawing represents 450m. Construct a diagonal scale showing divisions of 50cm and capable of measuring 300m. Mark on your scale the distances 255.5m and 177.5m. [15M]
- 2.(a) Draw the projections of a line 70 mm long when it is parallel to both the HP and VP. The line is 20mm from both HP and VP.  
(b) Draw the projections of a line 50mm long when it is perpendicular to VP and parallel to HP and 20mm above HP. One end of the line is in VP. [7M + 8M]
3. The mid point of a 60mm long line CD is 40mm above HP and 50mm in front of VP. Top view and front view of the line measure 35mm and 45mm respectively. Draw the projections of the line. [15M]
4. An equilateral triangle of 40mm side is perpendicular to both HP and VP. One of its corners is on HP and side through that corner is inclined at  $45^{\circ}$  to HP. Draw front view, top view and side views. [15M]
5. A square prism of base side 35mm and axis length 60mm rests on one of its base edges on HP with its axis inclined at  $30^{\circ}$  to HP and parallel to VP. Draw its projections. [15M]
6. Draw the projections of a cone of base diameter 50mm and axis length 70mm when it lies on the ground on one of its generators and with its axis parallel to VP. [15M]
7. Draw the isometric projection of a hexagonal prism of base side 25mm and axis height 60mm when it rests on HP on its base with a base edge parallel to VP. [15M]

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Set No - 2

8. Draw the front view, top view and left side view of the block shown in figure(1) below.



Figure(1)

[15M]

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**Set No - 3**

**I B.Tech II Semester Regular Examinations June - 2012**

**ENGINEERING DRAWING**

**(Common to Computer Science & Engineering, Electronics & Instrumentation Engineering,  
Electronics & Computer Engineering)**

**Time: 3 hours**

**Max. Marks : 75**

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

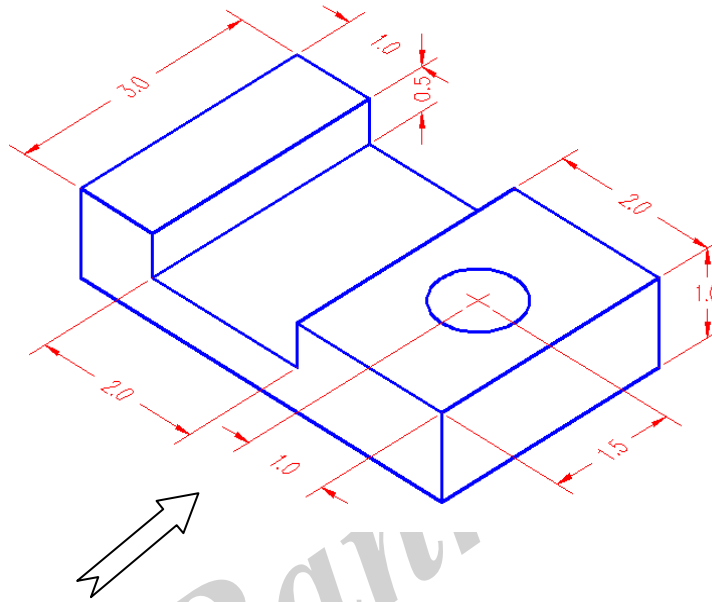
**\* \* \* \* \***

- 1.(a) Draw a square of 50mm side with two edges horizontal. Construct another square with vertices as mid points of the 50mm edge square.  
(b) The distance between two towns is 200km and it is shown on a map as 10cm. Draw a diagonal scale to indicate 223km and 135km.  
[5M + 10M]
- 2.(a) Draw the projections of a line 70 mm long while it is perpendicular to HP and parallel to VP and 15 mm in front of VP. The end nearer to HP is 20mm above it.  
(b) Draw the projections of a 75 mm long straight line, inclined at  $30^{\circ}$  to VP with its one end 20mm in front of it. The line is parallel to and 20mm above the HP.  
[6M + 9M]
3. A line CD has end C 20mm above HP and 20mm in front of VP. End D is 45mm above HP and 55mm in front of VP. The distance between the end projectors is 50mm. Draw the projections of the line, find true length of the line and its inclination with HP and VP.  
[15M]
4. A rectangular lamina of size 50mm X 40mm has a central circular hole of 30mm diameter. It is resting on HP with a shorter edge perpendicular to VP. The surface of the lamina is inclined at  $35^{\circ}$  to HP. Draw the projections.  
[15M]
5. A hexagonal prism of base side 30mm and axis length 60mm lies on HP on one of its base edges. The axis of the prism is inclined at  $60^{\circ}$  to HP and parallel to VP. Draw its projections.  
[15M]
6. A cone of base diameter 40mm and altitude 60mm rests on HP on a point of the base circle. The axis of the cone is inclined at  $30^{\circ}$  to HP and parallel to VP. Draw its projections.  
[15M]
7. Draw the isometric views of a cylinder of base diameter 50mm and axis height 60mm when (i) it rests on HP on its base (ii) it rests on VP on its base.  
[15M]

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Set No - 3

8. Draw the front view, top view and left side view of the block shown in figure(1) below. The dimensions are cm.



Figure(1)

[15M]

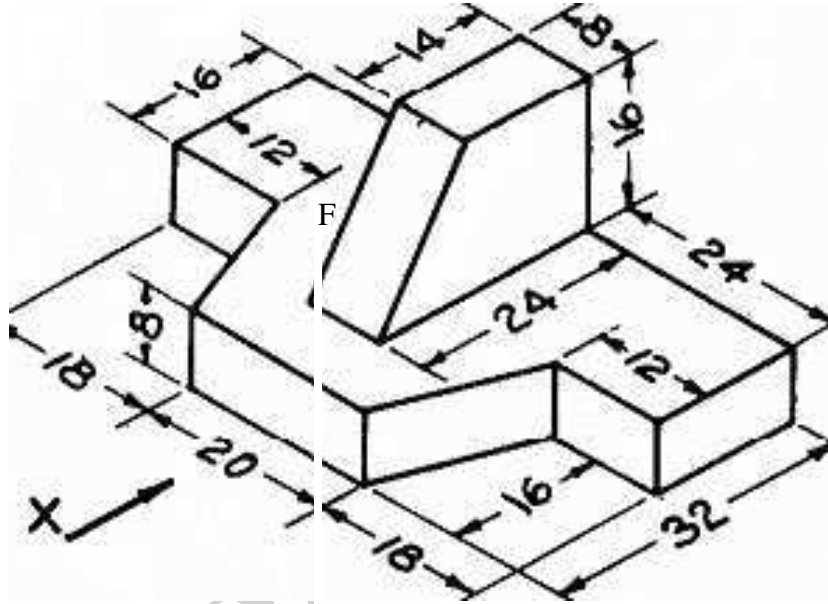
**Subject Code:- R10205/R10****Set No - 4****I B.Tech II Semester Regular Examinations June - 2012****ENGINEERING DRAWING****(Common to Computer Science & Engineering, Electronics & Instrumentation Engineering,  
Electronics & Computer Engineering)****Time: 3 hours****Max. Marks : 75****Answer any FIVE Questions  
All Questions carry equal marks****\* \* \* \* \***

1. Construct a vernier scale of R.F =2 to show cm,  $1/10^{\text{th}}$  of cm and  $1/100^{\text{th}}$  of cm to read up to 10cm. Mark on the scale the lengths 7.02 cm, 2.25cm and 0.59cm. [15M]
- 2.(a) A line AB 70mm long has its end A 20mm above HP and 20mm in front of VP. It is perpendicular to HP and parallel to VP. Draw its projections.  
(b) A 60mm long line DE has its end D 10mm above HP and 10mm in front of VP. The line is inclined at  $30^{\circ}$  to VP and parallel to HP. Draw its projections. [7M + 8M]
3. End D of a line DE is 15mm above HP and 20mm in front of VP. The top view of the line is inclined at  $45^{\circ}$  to VP and end E is 50mm in front of VP. If the line is inclined at  $45^{\circ}$  to HP draw the projections of the line, find true length of the line and its inclination with VP. [15M]
4. A square lamina of 50mm side has circular hole of 34 mm diameter. The center of the circular hole coincide with the center of the lamina .The lamina is perpendicular to HP with one of its sides in VP. The surface of the lamina is inclined at  $35^{\circ}$  to VP. Draw projections. [15M]
5. Draw the projections of a cylinder of 40mm base diameter and 50mm axis length when its axis is parallel to both HP and VP. The axis of the cylinder is 25mm above HP and 30mm in front of VP. [15M]
6. A square pyramid of base side 30mm and height 60mm lies on HP on one of its triangular faces with its axis parallel to VP. Draw its projections. [15M]
7. Draw the isometric projection of a composite solid consisting of a cone of base diameter 40mm and axis height 60mm which is centrally resting on top of cube of side 50mm. The cube is resting on ground on a base and two lateral faces of it are parallel to VP. [15M]

Subject Code-: R10205/R10

Set No - 4

8. Draw the front view, top view and left side view of the block shown in figure(1) below. The dimensions are cm.



Figure(1)

[15M]