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17CED14/24

First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours (COMMON TO ALL BRANCHES) Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point is 30 mm behind VP, 30 mm above HP and 25 mm in front / behind / from LPP. Draw its projections and name the side view. **10 Marks**

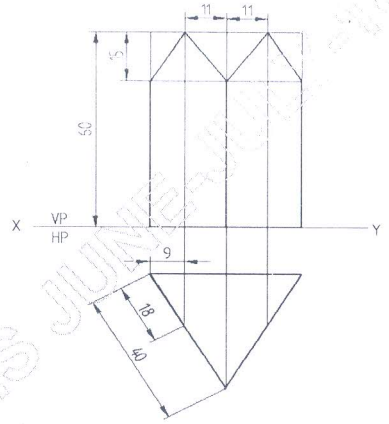
b. Draw the projections of the line PQ and find its apparent lengths, true length and true inclination with HP when the line PQ has its end P 25mm above HP and 20mm in front of VP. The distance between the end projectors of the line when measured parallel to the line of intersection of the HP and VP is 60 mm. the end Q is 50 mm above the HP and the line is inclined at 30^0 to the VP. **20 Marks**

OR

1. A circular lamina inclined to the VP appears in the front view as an ellipse of major axis 30mm and minor axis 15mm. The major axis is parallel to both HP and VP. One end of the minor axis is parallel to both the HP and VP. Draw the projections of the lamina and determine the inclination of the lamina with the VP. **30 Marks**

2. A tetrahedron of sides 40mm is resting on one of its sides on HP. This side is parallel to VP and 40mm away from it. It is tilted about resting side such that the base containing this edge is inclined at 30° to HP. Draw the projections of the solid. **40 Marks**

3. A Triangular prism with one of its rectangular faces parallel to VP and nearer to it is cut as shown in fig. Draw the development of the retained portions of the prism which are shown in dark lines. **30 Marks**



OR

3. A pentagonal pyramid base side 25mm and height 65mm is placed centrally on a rectangular slab 100mm x 60mm and 20mm thick. Draw the isometric projection of the combination. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. Draw all the three views of a point 'p' lying 60 mm below HP, 70 mm in front of VP and 40 mm from the RPP. Also state the quadrant in which it lies. **10 Marks**

   b. A line AB 100 mm long measures 80 mm in front view and 70 mm in top view. The midpoint M of the line is 40 mm from both HP and VP. Draw its projections. Find its inclinations. **20 Marks**

OR

1. A square lamina ABCD of 40 mm side rests on corner A such that the diagonal AC appears to be at 45^0 to VP. The two sides AD and AB containing the corner A make equal inclinations with HP, the surface of the lamina makes 30^0 with HP. Draw its top and front views. **30 Marks**

2. A hexahedron of 30mm sides is resting on one of its corners on HP such that one of its solid diagonals is perpendicular to VP. Draw the projections of the solid. **40 Marks**

3. A square pyramid base 40mm side and axis 65 mm long has its base on HP and all the edges of the base are equally inclined to VP. It is cut by an inclined section plane so as the truncated surface at 45° to its axis, bisecting it. Draw the development of the truncated pyramid. **30 Marks**

OR

3. A hemisphere diameter 50mm is resting on its curved surface centrally on the top face of a rectangular pyramid base 80mm x 60mm and top 60mm x 40mm, height 55mm. Draw the isometric projection of the combination. **30 Marks**

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Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. Two points P and Q are on HP. The point P is 30 mm in behind VP, while Q is 50 mm in front of VP. The line joining their top views makes an angle of 40° with XY. Find the horizontal distance between their projectors parallel to XY line. **10 Marks**

b. Draw the projections of a line PQ and find its true length and inclinations when the line is inclined at 30° to the HP and 45° to the VP. The line is having one of its ends 15 mm above HP and 20 mm in front of VP. The distance between the end projectors on the XY line is 60 mm. **20 Marks**

OR

1. A Pentagonal lamina having edges 25 mm is placed on one of its corners on VP such that the surface makes an angle of 30^0 with VP and perpendicular bisector of the edge passing through the corner on which the lamina rests is inclined at 45^0 to HP. Draw the top and front views of the lamina. **30 Marks**

2. A Square pyramid 35mm sides of base and 60mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. **40 Marks**

3. A hexagonal pyramid 25 mm sides of base and axis 65 mm long is resting on its base on HP with one of the edges of the base parallel to VP. It is cut by a vertical section plane at a distance of 8 mm from the axis towards right side. Develop the lateral surface of the left part of the pyramid. **30 Marks**

OR

3. Three rectangular slabs (lxbxh) 100mm x 60mm x 20mm, 100mm x 40mm x 20mm and 100mm x 20mm x 20mm are placed one above the other in the descending order of their width-b, such that their longer axes are co-planar. Draw the isometric projection of the combination of solids. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours (COMMON TO ALL BRANCHES) Max. Marks: 100

Note: 1. Answer three full questions 2. Use A4 sheets supplied.
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point 30mm above XY line is the front view of two points A&B .The top view of A is 40 mm behind VP & The top view of B is 45 mm in front of VP. Draw the projections of the points & state the quadrants in which the points are situated. (10 Marks)

   b. One end of a line is 30 mm in front of VP and 30 mm above HP. The line is inclined at 40^0 to HP and its top view measuring 60 mm, is inclined at 50^0 to XY. Draw the projections of the line and determine true length and inclination with VP. (20 Marks)

or

1. A hexagonal lamina of sides 25mm rests on one of its sides on HP. The lamina makes 45° to HP and the side on which it rests makes 30° to VP. Draw its projections. (30 Marks)

2. A square prism 35 mm sides of base and 60 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45°. (40 Marks)

3. A square prism of base side 40mm and axis length 65mm is resting on HP on its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane 60° to HP and perpendicular to VP and is passing through a point on the axis at a distance 15mm from the top face. Draw the development of the lower portion of the prism. (30 Marks)

or

3 A triangular prism base side-30mm and length-70mm is resting on its rectangular face on top of a square slab side-70mm and 25mm-thick. Draw the isometric projection of the combination. (30 Marks)

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point 'P' is on HP and 30 mm in front of VP. Another point 'Q' is on VP and 40 mm above HP. The distance between their projectors parallel to XY line is 50 mm. Find the distance between their front and top views of the points P and Q. **10 Marks**

b. The top view pq of a straight line is 70 mm and makes an angle of 60° with XY line. The end Q is 10 mm in front of VP and 30 mm above the HP. The difference between the distances of P and Q above the HP is 45mm. Draw the projections. Determine its true length and true inclinations with HP and VP. **20 Marks**

OR

1. A triangular plane lamina of sides 25 mm is resting on HP with one of its corners touching it, such that the side opposite to the corner on which it rests is 15 mm above HP and makes an angle of 300 with VP. Draw the top and front views in this position. Also determine the inclination of the lamina to the reference plane. **30 Marks**

2. A Pentagonal prism 25mm sides of base and 60mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. Draw the projections of the prism when the axis is inclined to HP at 40°. **40 Marks**

3. A cube of side 40 mm is resting on HP with its base on HP such that one of its vertical faces is inclined at 30° to the VP. It is cut by a section plane perpendicular to VP, inclined to HP at an angle 45° and passes through the midpoint of the axis. Draw the development of the lower lateral surface of the cube. **30 Marks**

OR

3. A cube of side 40mm is resting centrally on a hexagonal prism base side 40mm and height 50mm, such that one of the base sides of the cube is parallel to one of the sides of the top face of the prism. Draw the isometric projection of the combination. **30 Marks**

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COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. Draw the projections of a point A lying 30 mm above HP and in first quadrant. If its shortest distance from the line of intersection of HP & VP is 50 mm. Also find the distance of the point from VP. **10 Marks**

b. A line PQ is inclined to both HP and VP by 30° and 45° respectively. One of its end P is at a distance of 10 mm from HP and 15 mm from VP. The distance between the end projectors is 45 mm. Draw the top and front views of the line. Determine the true length of the line and the distances of the end Q from VP and HP. **20 Marks**

OR

1. A hexagonal lamina of sides 30mm has one of its corners in VP and its surface inclined at an angle of 30° with VP. The diagonal passing through that corner which is in VP appears to be inclined at 45° to HP. Draw the projections of the lamina. **30 Marks**

2. A Hexagonal pyramid 25mm sides of base and 50mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. **40 Marks**

3. Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. **30 Marks**

OR

3. A frustum of a square pyramid base side 40mm, top face side 20mm and height 40mm is placed centrally on frustum of a cone base diameter 80mm, top diameter 60mm and height 20mm. Draw the Isometric projection of the combination. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

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Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. Draw and state the quadrants in which the following points are located. Assume any distances. **10 Marks**

A – Front view below XY line and top view above XY line.
B – Front and top views are below XY line.
C – Front and top views are above XY line.
D – Front view above XY line and top view below XY line.

b. A straight line AB measuring 80 mm long has the end A in the HP and 25 mm in front of the VP. Its midpoint M is 25 mm above the HP and 40 mm in front of the VP. Draw the projections of the line and determine the inclination of the line with HP and VP. **20 Marks**

OR

1. A circular lamina of 30 mm diameter rests on VP such that one of its diameter is inclined at 30° to VP and 45° to HP. Draw its top and front views in this position. **30 Marks**

2. A square pyramid 35 mm sides of base and 60 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°. **40 Marks**

3. Draw the development of the lateral surface of a funnel consisting of a cylinder and a frustum of a cone. The diameter of the cylinder is 20 mm and top face diameter of the funnel is 80 mm. the height of frustum and cylinder is equal to 60 mm and 40 mm respectively. **30 Marks**

OR

3. A rectangular pyramid of base 40 mm X 25 mm and height 50 mm is placed centrally on a rectangular slab sides 100 mm X 60 mm and thickness 20 mm. Draw the isometric projection of the combination. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point 20 mm below the reference XY line is the top view of three points 'P', 'Q' and 'R', 'P' is 20 mm below HP, 'Q' is 35 mm above HP and 'R' is on HP. Draw the projections of the three points and state their positions and quadrants in which they are situated. **10 Marks**

   b. Draw the projections of a line AB 90 mm long and find its true and apparent inclinations with HP and VP, when its end A is on HP and 20 mm in front of VP. Its midpoint M is 20 mm above the HP and 40 mm in front of the VP. **20 Marks**

OR

1. A circular lamina of 50 mm diameter rests on HP such that one of its diameters is inclined at 30° to VP and 45° to HP. Draw its top and front views in this position. **30 Marks**

2. A square prism 35 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base. Draw the projections of the prism when the axis is inclined to HP at 45° and VP at 30°. **40 Marks**

3. A pentagonal prism of base sides 30 mm and axis length 60 mm rests with its base on HP and an edge of the base inclined at 45° to VP. It is cut by a plane perpendicular to VP, inclined at 40° to HP and passing through a point on the axis, at a distance of 30 mm from the base. Develop the remaining surfaces of the truncated prism. **30 Marks**

OR

3. A square prism of side 40 mm and height 70 mm has a full depth co-axial square holes side 20 mm, such that edges of both the squares are parallel. Draw the isometric projection of the combination. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point is lying on VP, 20 mm below HP and 30 mm behind / in front / from LPP. Draw its projections and name the side view. **10 Marks**

   b. A line AB 80 mm long has its end A 20 mm above the HP and 30 mm in front of VP. It is inclined to 30° to HP and 45° to VP. Draw the projections of the line and find apparent lengths and apparent inclinations. **20 Marks**

OR

1. A pentagonal lamina of edges 25 mm is resting on HP with one of its sides such that the surface makes an angle of 60° with HP. The edge on which it rests is inclined at 45° to VP. Draw its projections. **30 Marks**

2. A pentagonal pyramid 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base. Draw the projections of the pyramid when the axis is inclined to HP at 40° and VP at 30°. **40 Marks**

3. The inside of the hopper of a flour mill is to be lined with thin sheet. The top and bottom face of the hopper are regular pentagons with each side equal to 30 mm and 22.5 mm respectively. The height of the hopper is 30 mm. draw the shape of the sheet to which is to be cut so as to fit into the hopper. **30 Marks**

OR

3. A square prism of base side 40 mm, height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination. Draw the isometric projection of the combination. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

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Time: 3 Hours (COMMON TO ALL BRANCHES) Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point 'P' is on HP and 35 mm in front of VP. Point 'Q' is on VP and below HP. The line joining their front views makes an angle of 30° to XY line, while the line joining their top views makes an angle of 45° to XY line. Find the distance of the point 'Q' from HP. **10 Marks**

b. A straight line PQ, 65 mm long is inclined at 45° to HP and 30° to VP. The point P is 70 mm from both the reference planes and the point Q is towards the reference planes. Draw the projections. **20 Marks**

OR

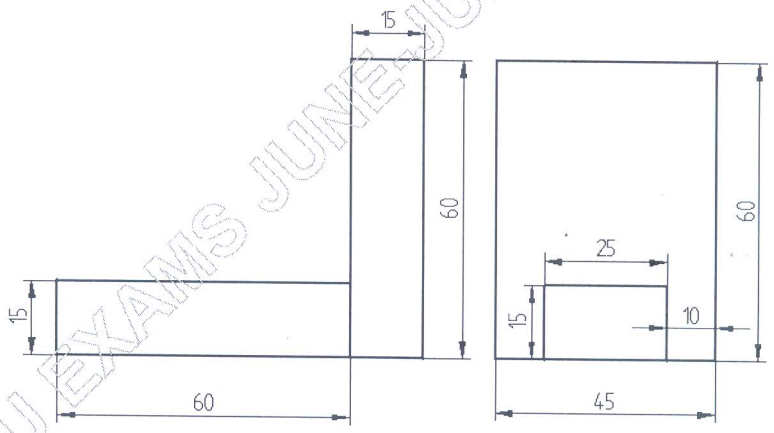
1. An isosceles triangular plate of negligible thickness has base 25 mm long and altitude 35 mm. it is so placed on HP such that in the front view it is seen as an equilateral triangle of 25 mm sides with the side that is parallel to VP is inclined at 45^0 to HP. Draw its top and front views. Also determine the inclination of the plate with the reference plane. **30 Marks**

2. A Hexagonal prism 25mm sides of base and 50mm axis length is suspended freely from one of its corners. Draw the projections of the prism when the axis appears to be inclined to VP at 45°. **40 Marks**

3. A rectangular prism of base 40 mm x 25 mm and height 65 mm rests on HP on its base with the longer side of base inclined at 30° to VP. It is cut by a plane inclined at 40° to HP, perpendicular to VP cuts the axis at its mid height. Draw the development of the remaining portion of the prism. **30 Marks**

OR

3. Following figure shows the front and side views of solid. Draw the isometric projection of the solid. **30 Marks**



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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 80

Note: 1. Answer three full questions. 2. Use A4 sheets supplied.
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

Q.No.1 **a.** A point 'P' is 15 mm above HP and 25 mm in front of VP. Another point 'Q' is 25 mm behind VP and 40 mm below HP. Draw the projections when the distance between their projectors parallel to XY line is zero mm. Add the right side view only to point 'Q'. **10 Marks**

b. A line has its end A 15 mm from HP and 10 mm from VP. The end B is 55 mm from HP and the line is inclined at 30° to HP. The distance between the end projectors is 50 mm. Draw the projections of the line. Determine the true length and true inclination with VP. **15 Marks**

OR

Q.No.1 An equilateral triangular lamina of 25 m side lies with one of its edges on HP such that the surface of the lamina is inclined to HP at 60°. The edge on which it rests is inclined to VP at 60°. Draw the projections. **25 Marks**

Q.No.2 A pentagonal prism 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. Draw the projections of the prism when the axis is inclined to HP at 40°. **30 Marks**

Q.No.3 A square prism of base side 30 mm and axis length 60 mm is resting on HP on one of its base with all the vertical faces being equally inclined to VP. It is cut by an inclined plane 60° to HP and perpendicular to VP and is passing through a point on the axis at a distance 45mm from the base. Draw the development of the lower portion of the prism. **25 Marks**

OR

Q.No.3 A cone of base diameter 50 mm and height 60 mm is placed centrally on a equilateral triangular prism of side 100 mm and 20 mm thick. Draw the isometric projection of the combination. **25 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 80

Note: 1. Answer three full questions. 2. Use A4 sheets supplied.
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

Q.No.1 **a.** Two points R and S are on HP. The point R is 35 mm in front of VP, while S is 50 mm behind VP. The line joining their top views makes an angle of 40° with XY. Find the horizontal distance between the two projectors. **10 Marks**

b. The top view of a line 75 mm long measures 50 mm. The end P is 30 mm in front of VP and 15 mm above the HP. The end Q is 15 mm in front of VP and above HP. Draw the projections of the line and find its true inclinations with HP and VP. **15 Marks**

OR

Q.No.1 The front view of a rectangular lamina of sides 30 mm x 20 mm is square of 20 mm sides. Draw the projections and determine the inclinations of the surface of the lamina with HP and VP. **25 Marks**

Q.No.2 A Pentagonal prism 25mm sides of base and 60mm axis length rests on HP on one of its edges of the base. Draw the projections of the prism when the axis is inclined to HP at 40° and VP at 30°. **30 Marks**

Q.No.3 A cube of side 40 mm is resting on HP with its base on HP such that one of its vertical faces are inclined at 30° to the VP. It is cut by a section plane perpendicular to VP, inclined to HP at an angle 45° and passes through the midpoint of the axis. Draw the development of the lower lateral surface of the cube. **25 Marks**

OR

Q.No.3 A rectangular pyramid of base- 40mm x 25mm and height 50mm is placed centrally on a cylindrical slab of diameter 80 mm and thickness 30 mm. Draw the projection of the combination of solids. **25 Marks**

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Note: 1. Answer three full questions. 2. Use A4 sheets supplied.
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

Q.No.1 a. A point 'A' is 20 mm above HP and 25 mm in front of VP. Another point 'B' is 25 mm behind VP and 40 mm below HP. Draw their projections when the distance between their projectors parallel to XY line is zero mm. Add the right side view only to point 'B'. **10 Marks**

b. A line AB 65 mm long has its end A 20 mm above the HP and 25 mm in front of the VP. The end B is 40 mm above the HP and 65 mm in front of the VP. Draw the projections of AB and show its show inclinations with the HP and the VP. **15 Marks**

OR

Q.No.1 A pentagonal lamina of sides 25 mm is having a side both on HP and VP. The surface of the lamina is inclined at an angle of 60° with HP. Draw the top and front views of the lamina. **25 Marks**

Q.No.2 A square prism 35 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base. Draw the projections of the prism when the axis is inclined to HP at 45° and VP at 30°. **30 Marks**

Q.No.3 A cube of side 40 mm is resting on HP with its base such that one of its vertical faces is inclined at 30° to VP. It is cut by a section plane perpendicular to VP, inclined to HP at an angle 45° and passes through the midpoint of the axis. Draw the development of the lower lateral surface of the cube. **25 Marks**

OR

Q.No.3 Three cubes of sides 60 mm, 40 mm, 20 mm are placed centrally one above the other in ascending order of their side. Draw the isometric projection of the combination. **25 Marks**

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Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 80

Note: 1. Answer three full questions. 2. Use A4 sheets supplied.
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

Q.No.1 **a.** A point is lying on HP, 20mm behind VP and 25mm behind/infront/from RPP. Draw its projections and name the side view. **10 Marks**

b. Draw the projections of a line AB 100 mm long inclined at 45° to VP and 30° to HP. One end of the line is 20 mm above the HP and in the VP. Also determine the apparent length and inclinations. **15 Marks**

OR

Q.No.1 A regular hexagonal lamina of sides 30 mm is lying in such a way that one of Its sides touches both the reference planes. If the lamina makes 60^0 with HP, draw the projections of the lamina. **25 Marks**

Q.No.2 A Pentagonal prism 25mm sides of base and 50mm axis length is suspended freely from one of its corners. Draw the projections of the prism when the axis appears to be inclined to VP at 45°. **30 Marks**

Q.No.3 A frustum of a pentagonal pyramid, smaller base sides 16 mm and bigger top face sides 32 mm and height 40 mm, is resting on the HP on its smaller base, with one of its base sides parallel to the VP. Draw the projections of the frustum and develop the lateral surface of it. **25 Marks**

OR

Q.No.3 A triangular pyramid base side 40mm and height 50mm is placed centrally on a square slab side 80mm and 20mm thick. Draw the isometric projection of the combination. **25 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

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Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point G is 25 mm below HP & is situated in the third quadrant. Its shortest distance from the intersection of XY and X1Y1 is 45mm. Draw its projections and find its distance from VP. **10 Marks**

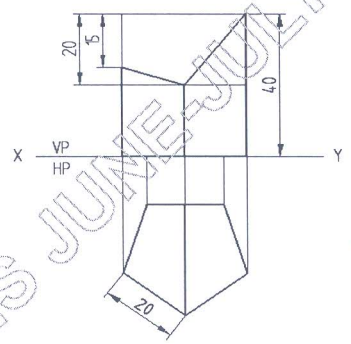
   b. The top view of a line 75 mm long measures 50 mm.The end P is 30 mm in front of VP and 15 mm above the HP. The end Q is 15 mm in front of VP and above HP. Draw the projections of the line and find its true inclinations with HP and VP. **20 Marks**

OR

1. The top view of a square lamina of side 30 mm is a rectangle of sides 30mm x 20mm with the longer side of the rectangle being parallel to both HP and VP. Draw the top and front views of the square lamina. What is the inclination of the surface of the lamina with HP and VP? **30 Marks**

2. A Hexagonal prism 25mm sides of base and 50mm axis length rests on HP on one of its edges. Draw the projections of the prism when the axis is inclined to HP at 45° and appears to be inclined to VP 40°. **40 Marks**

3. A pentagonal prism of base sides 20 mm and height of 40 mm is resting with its base on HP with a base edge parallel to the VP. The prism is cut as shown in the following front view. Draw the development of the lateral surface of the prism. **30 Marks**



OR

3. An equilateral triangular prism base side 30mm and length 70mm is resting on its rectangular face on top of a square slab side 70mm and 25mm thick. Draw the isometric projection of the combination. **30 Marks**

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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: *1. Answer three full questions. 2. Use A4 sheets supplied.*
3. Draw to actual scale. 4. Missing data, if any, may be assumed suitably.

1. a. A point A is 20 mm above HP & 25 mm in front of VP. Another point B is 25 mm behind VP and 40 mm below HP. Draw their projections when the distance between their projectors parallel to XY line is zero mm. add the right side view only to point B. **10 Marks**

b. A line PQ 85 mm long has its end P 10 mm above the HP and 15 mm in front of the VP. The top view and front view of line PQ are 75 mm and 80 mm respectively. Draw its projections. Also determine the true and apparent inclinations of the line. **20 Marks**

OR

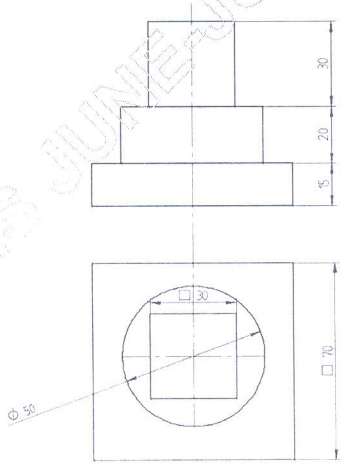
1. The front view of a rectangular lamina of sides 30 mm x 20 mm is square of 20 mm sides. Draw the projections and determine the inclinations of the surface of the lamina with HP and VP. **30 Marks**

2. A Pentagonal prism 25mm sides of base and 50mm axis length is suspended freely from one of its corners. Draw the projections of the prism when the axis appears to be inclined to VP at 45°. **40 Marks**

3. Draw the development of the lateral surface of a truncated vertical cylinder, 40mm diameter of base and height 50mm, the truncated flat surface of the cylinder bisects the axis at 60° to it. **30 Marks**

OR

3. Following figure shows the front and top views of solid. Draw the isometric projection of the solid. **30 Marks**



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First/Second Semester B.E. Degree Examination, June 2018

COMPUTER AIDED ENGINEERING DRAWING

Duration: 03 Hours **(COMMON TO ALL BRANCHES)** **Max Marks: 100**

Note: 1. Answer three full questions. 2. Use of A4 sheets supplied.
3. Draw to actual scale. 4. Missing data, if any, may be suitably assumed.

1. a. Draw the projections of a point 'A' lying 30 mm above HP and in first quadrant, if its shortest distance from line of intersection of HP and VP is 50 mm. Also find the distance of the point from VP. **10 Marks**

   b. A line AB 100 mm long measures 80 mm in front view and 70 mm in top view the midpoint M of the line is 40 mm from both HP and VP. Draw its projections. Find its inclinations **20 Marks**

OR

1. A hexagonal lamina of sides 25 mm rests on one of its sides on VP. The lamina makes 45° to VP and the side on which it rests makes 45° to HP. Draw its projections. **30 Marks**

2. A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and to VP at 30°. **40 Marks**

3. A funnel is made of sheet metal. The funnel tapers from 60 mm to 30 mm diameters to a height of 25 mm and then forms a cylinder with a height of 50 mm. bottom of the funnel is beveled off completely at an angle of 45° to axis. Draw the development of the funnel. **30 Marks**

OR

3. A hemisphere of 40 mm diameter is supported co-axially on the vertex of a cone of base diameter 60 mm and axis length 50 mm. The flat circular face of the hemisphere is facing upside. Draw the isometric projections of the combination of solids. **30 Marks**

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