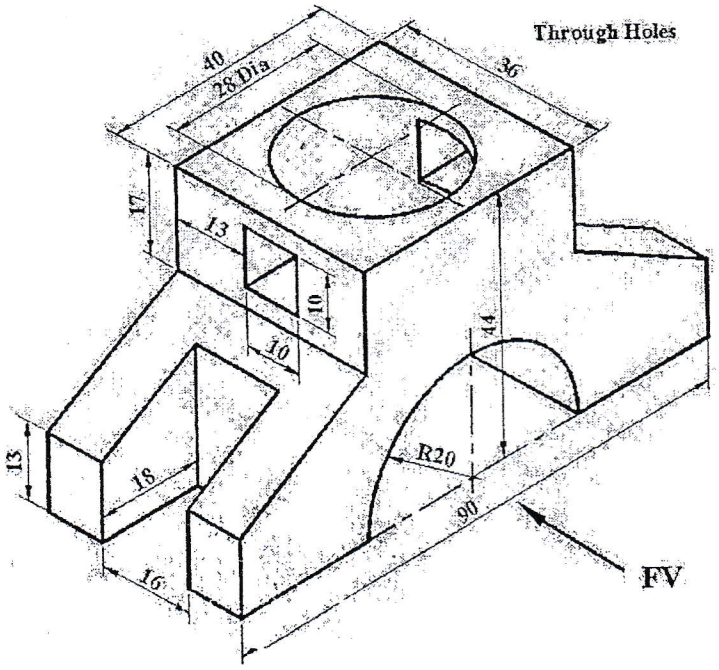
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2080 Bhadra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All Except BAR	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

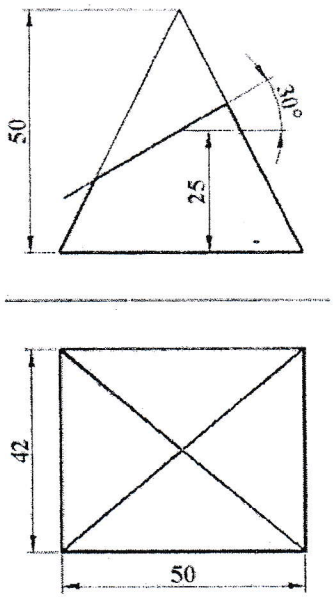
Subject: - Engineering Drawing I (*ME 401*)

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ ***Necessary figures are attached herewith.***
- ✓ *Assume suitable data if necessary.*

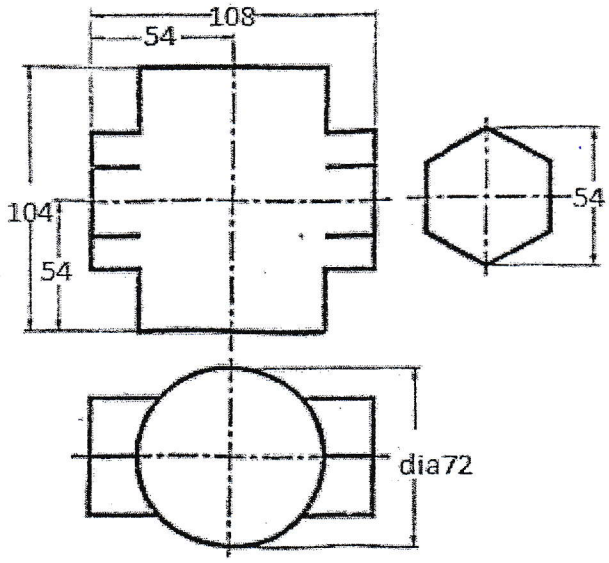
1. Draw a locus of a point on the circumference of a circle of radius 50 mm for one complete rotation when it rolls on a horizontal surface. [4]
2. A regular pentagonal plane ABCDE of 25 mm side has its edge BC resting on the VP. Its plane is perpendicular to the VP and inclined to the HP at 42°. Locate VP and HP. Draw its projection on VP and HP when its corner nearest to the HP is 18 mm above the HP. [1+2+2]
3. Draw orthographic projections with full sectional front view, side view and top view of the pictorial drawing as shown in figure below. [15]



4. Complete the orthographic views of the solid cut by a plane given in figure below. Find true shape of the surface cut by the plane and develop its complete surfaces. [3+1+6]



5. Draw the lines of intersection of the surfaces of geometrical solids shown in figure below. [6]



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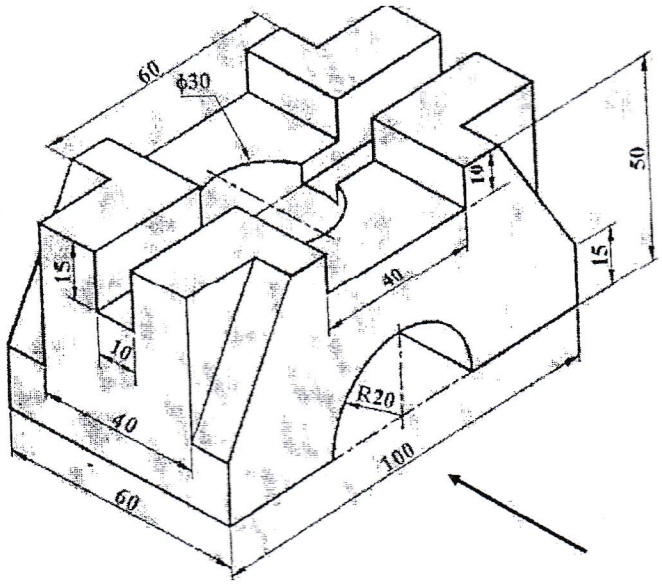
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2080 Baishakh

Exam.	Back		
Level	BE	Full Marks	40
Programme	All Except BAR	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

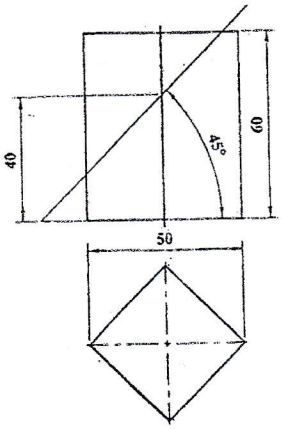
Subject: - Engineering Drawing I (*ME 401*)

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

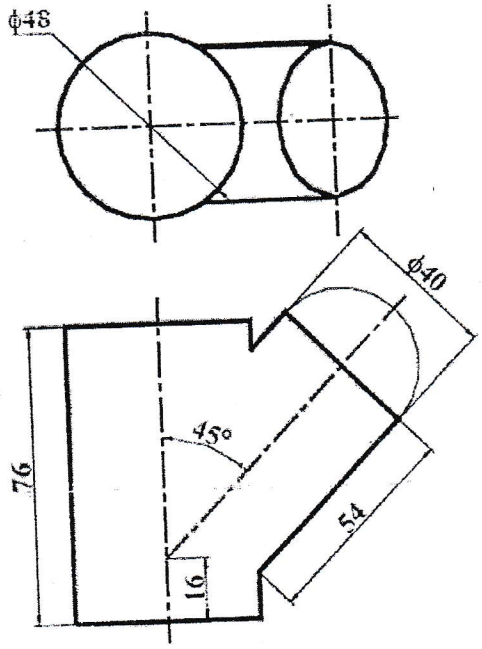
1. Make a cycloid of a locus of points on the circumference of circle for one complete rotation. When it rolls on a horizontal surface. Assume that the radius of a circle is 30 mm. [4]
2. A circle of 50 mm diameter is held in such a way that it is perpendicular to the HP and inclined to the VP at 35°. Draw its projections when a point on its circumference is nearer to the VP is 30 mm above the HP and 15 mm in front of the VP. [5]
3. Draw orthographic projections with full sectional front view, side view and top view of the pictorial drawing as shown in figure below. [15]



4. Draw three orthographic views of square prism which is cut by a plane as shown in given figure below. Construct complete surface development of the solid. [10]



5. Draw the given views assigned and complete the intersection for figure below. [6]



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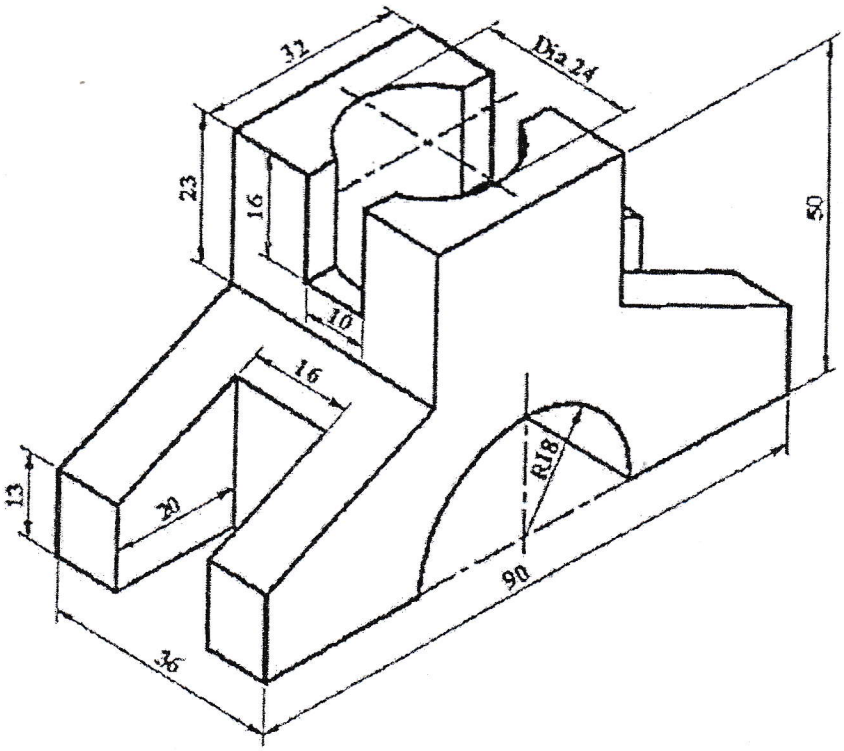
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2079 Bhadra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All except BAR	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

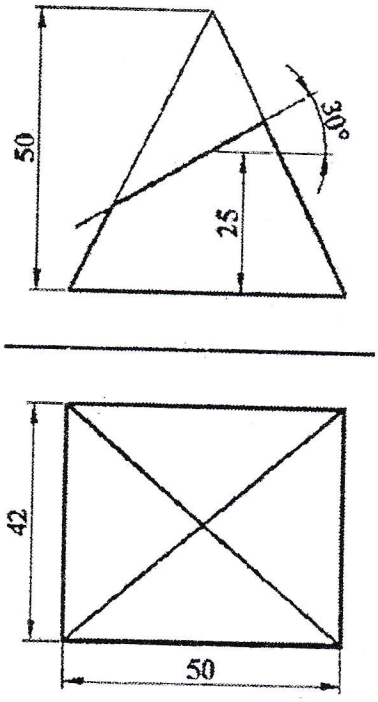
Subject: - Engineering Drawing I (*ME 401*)

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

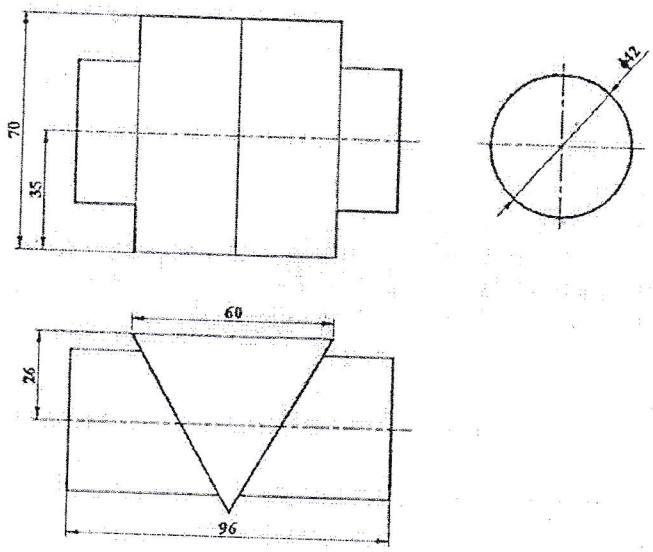
1. Draw a cycloid, one and half revolution of a circle having diameter 45 mm. [4]
2. A pentagonal plane with 30 mm side has an edge on the HP. This plane is perpendicular to the VP and inclined at 45° to the HP. Draw its projection when its corner nearer to the VP is 10 mm infront of it. [5]
3. Draw (a) full sectional front view, (b) top view and (c) side of an object shown in figure below. Also dimension it. [6+4+3+2]



4. Draw a complete orthographic drawing of a geometrical solid cut by planes as shown in figure below. Find the true shape of the section. Then develop the complete surface of the solid. [10]



5. Draw the lines of intersection of the surfaces of geometrical solids in figure below. [6]



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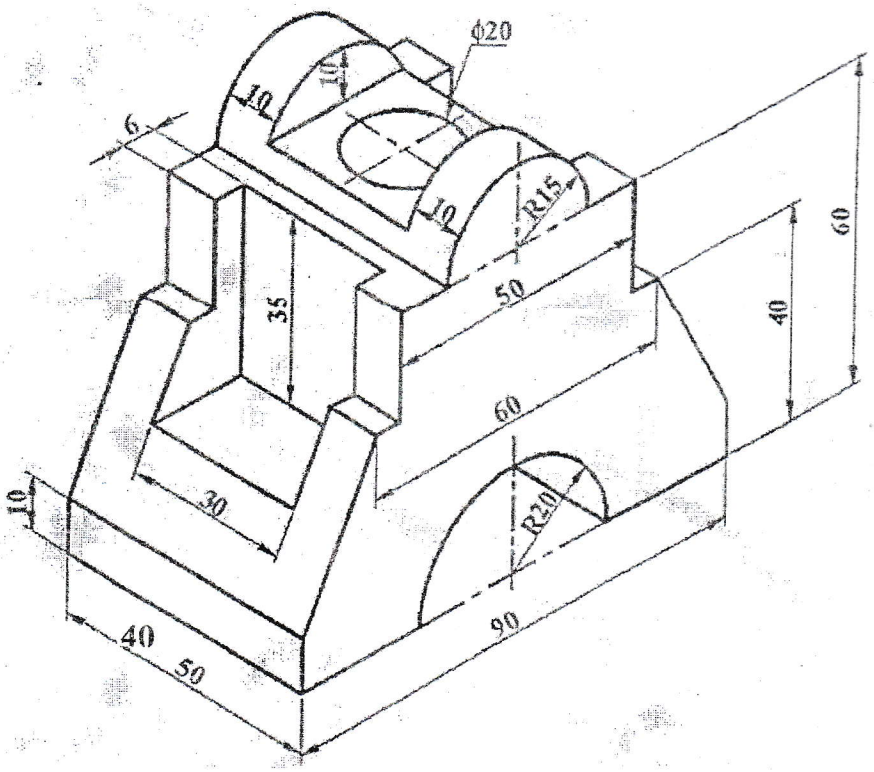
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2078 Bhadra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	ALL	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

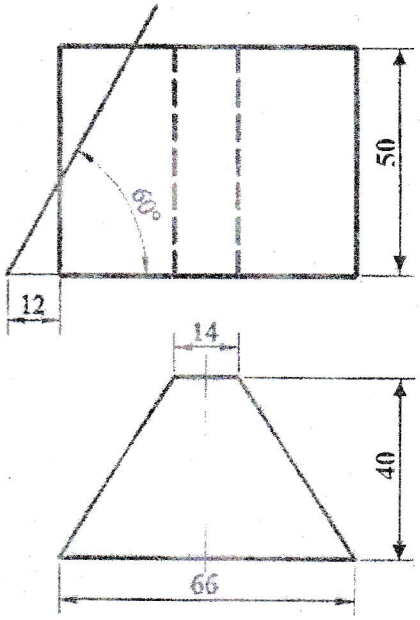
Subject: - Engineering Drawing I *(ME 401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

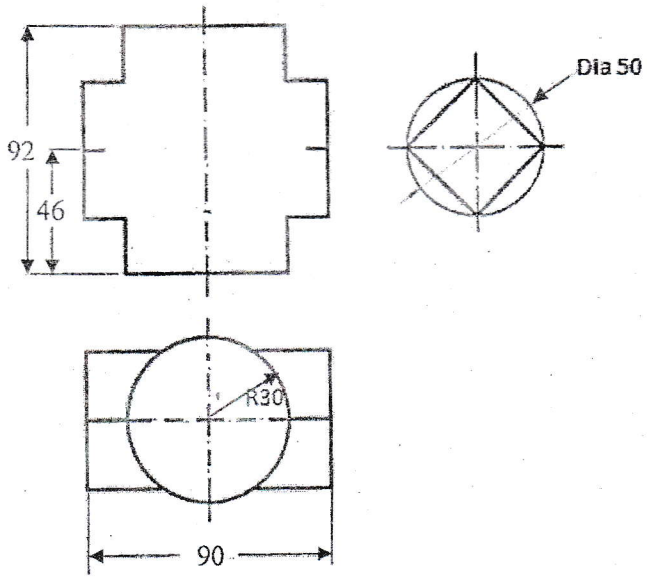
1. Draw an helix of pitch 60mm and height 90mm on a cylinder of diameter 44mm. [5]
2. A straight line AB 60mm long is inclined to the HP at 45° and its top view makes an angle of 60° with the reference line. Its end A is in the HP and 10 mm in front of the VP. Draw its projections and determine its inclination with the VP. [5]
3. Draw the top view side view and full sectional front view from the given pictorial view in figure given below. Show all the necessary dimensions. [14]



4. Make a complete orthographic drawing of a solid cut by plane as shown in figure below. Find the true shape of the section. Construct the development of surfaces of the solid. [10]



5. Draw a line intersection of the solids given in figure given below. [6]



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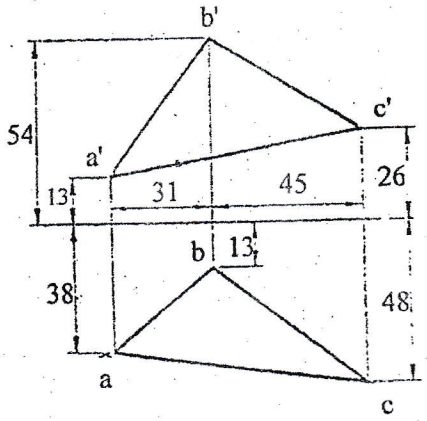
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2078 Kartik

Exam.	Back		
Level	BE	Full Marks	40
Programme	All Except BAR	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

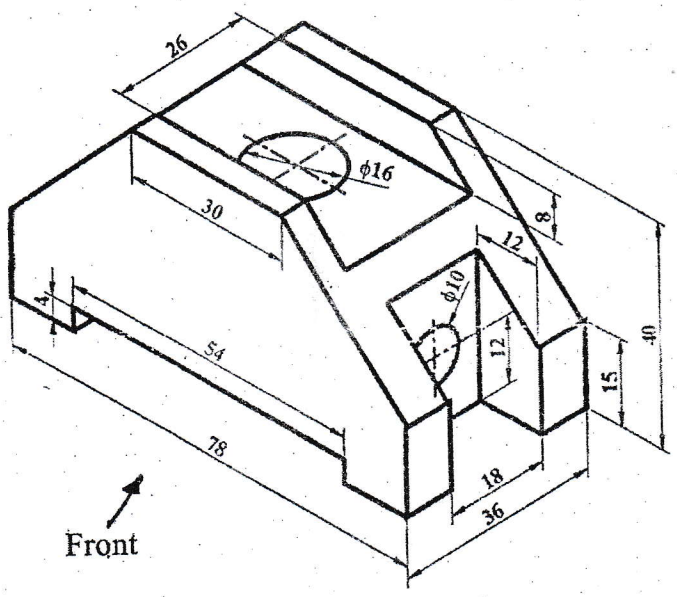
Subject: - Engineering Drawing I *(ME 401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt All questions.*
- ✓ *The figures in the margin indicate Full Marks.*
- ✓ *Assume suitable data if necessary.*

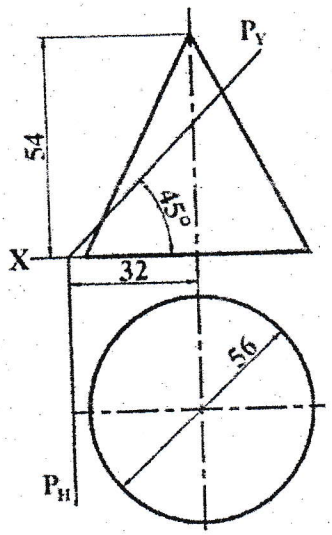
1. Construct a parabola with axis length of 60mm and double ordinate of 40mm. [4]
2. Top and front views of a triangular plane is given in figure below. Draw its true shapes. [5]



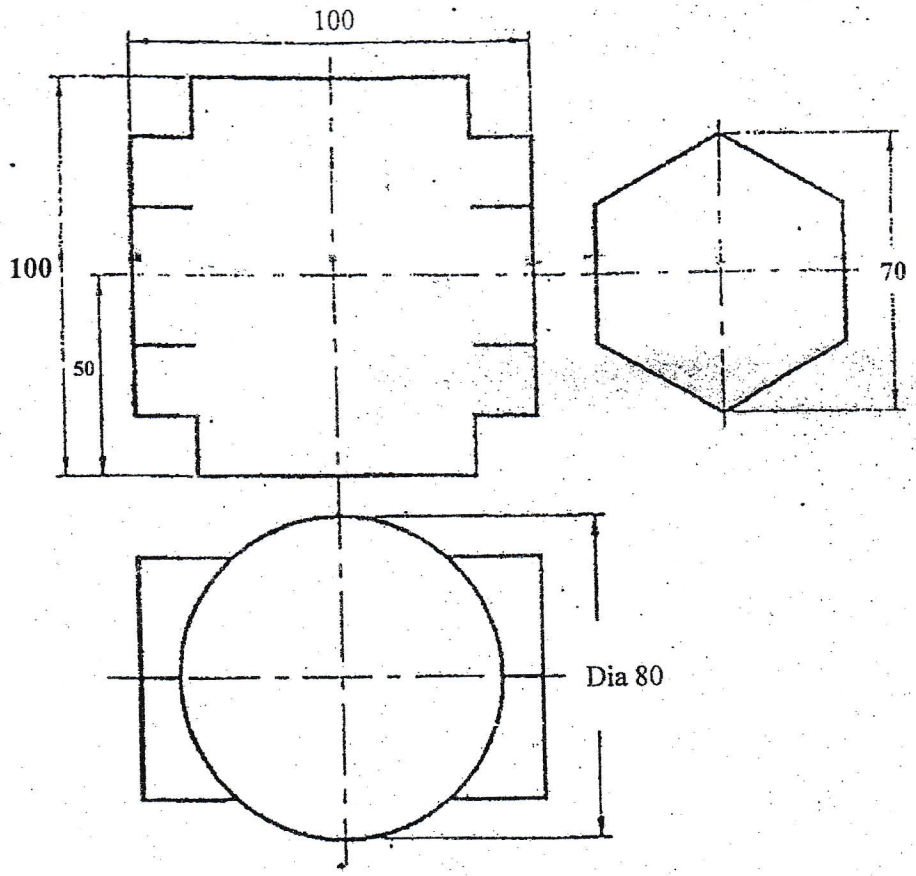
3. Draw orthographic views of the objects shown in figure below with full sectional front view. Assume all holes as through holes. [15]



4. Draw a complete orthographic drawing of the right solids shown in figure below cut by the planes. Find the true shape of the section. Then draw development of the solid. [10]



5. Find the line of intersection of the surfaces of given geometrical solids shown in figure below. [6]



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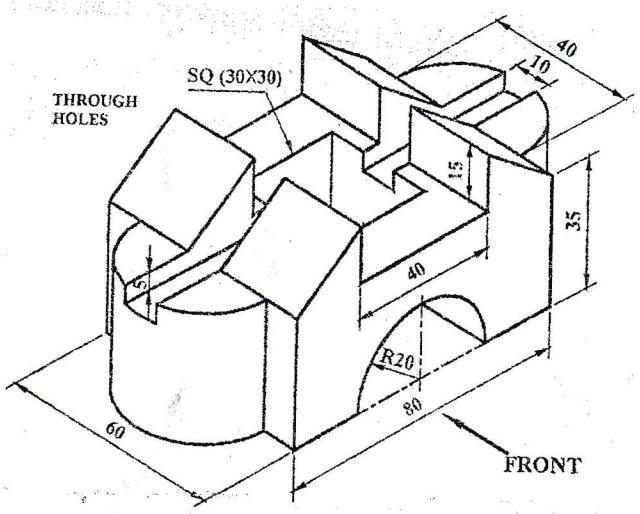
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2076 Chaitra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All except BAR	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

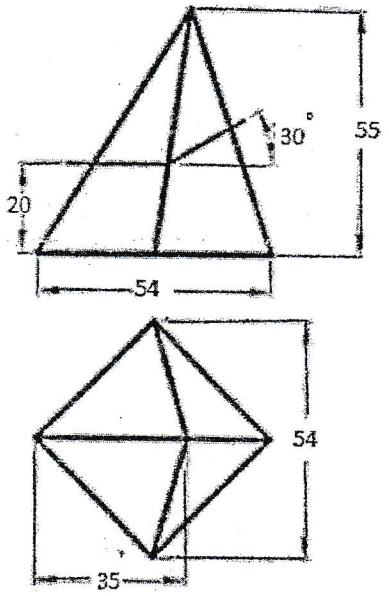
Subject: - Engineering Drawing I *(ME 401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

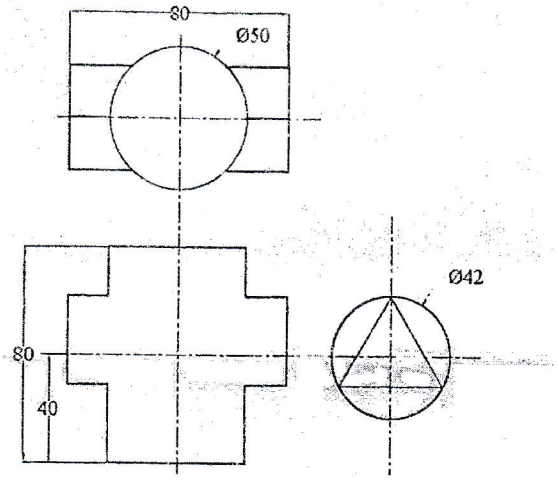
1. Draw a parabola with axis length of 70mm and double ordinate of 90mm. [5]
2. The front view p'q' of a line PQ 94mm long measures 60mm and its top view pq is 72mm. Its end Q is 24mm from both the planes. Draw its projections and find inclinations with VP and HP. [5]
3. Draw orthographic projections with full sectional front view, side view and top view of the pictorial drawing as shown in figure below. [14]



4. Complete the given orthographic drawing and develop its surfaces of figure given below: [10]



5. Draw the intersection curve for vertical cylinder and horizontal triangular prism shown in figure below. [6]



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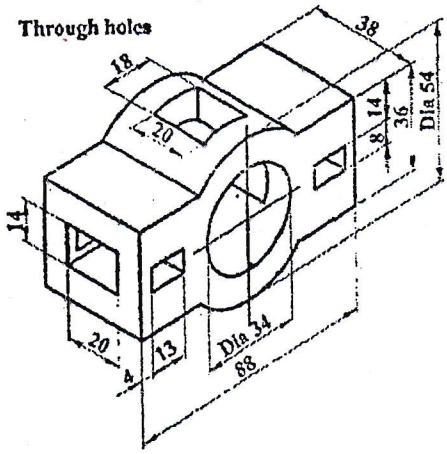
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2076 Ashwin

Exam.	Back		
Level	BE	Full Marks	40
Programme	All (Except BAR)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

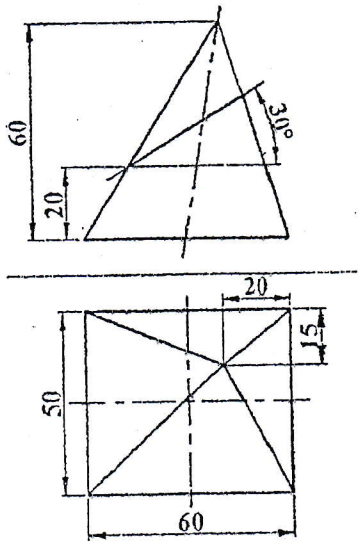
Subject: - Engineering Drawing I *(ME 401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt <u>All</u> questions.*
- ✓ *The figures in the margin indicate <u>Full Marks</u>.*
- ✓ *Assume suitable data if necessary.*

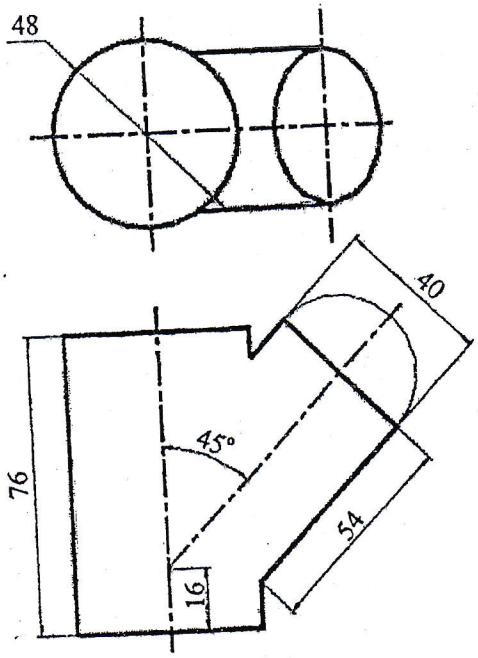
1. Draw an Archemedian Spiral for 1.5 convolutions with pitch equal to 50 mm. [4]
2. A regular hexagon ABCDEF of 25 mm side rests on one of its corner on the HP. Its plane is perpendicular to the VP and inclined to the HP at 30°. Draw its projections when its corner nearer to the VP is 15 mm in front of it. [5]
3. Draw complete Orthographic views with sectional front view of the figure below. [14]



4. Make a complete orthographic drawing of a solid cut by a plane as shown in figure below. Find the true shape of the section. Construct the development of surfaces of the solid. [10]



5. Draw orthographic projection of given geometrical figure by showing curve of intersection. [7]



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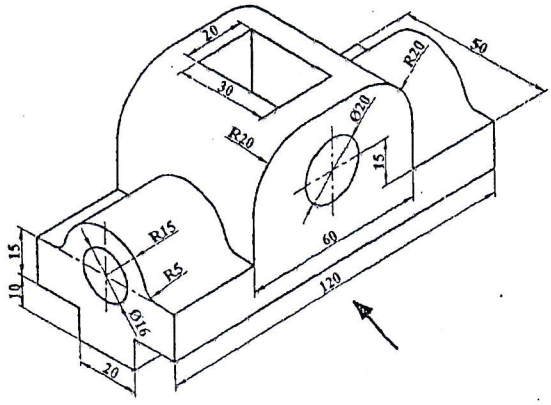
TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2075 Chaitra

Exam.	Regular / Back		
Level	BE	Full Marks	40
Programme	All (Except BAE)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

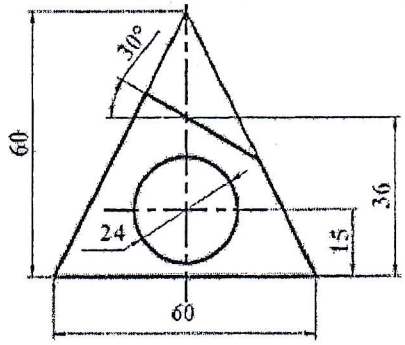
Subject: - Engineering Drawing I *(ME 401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

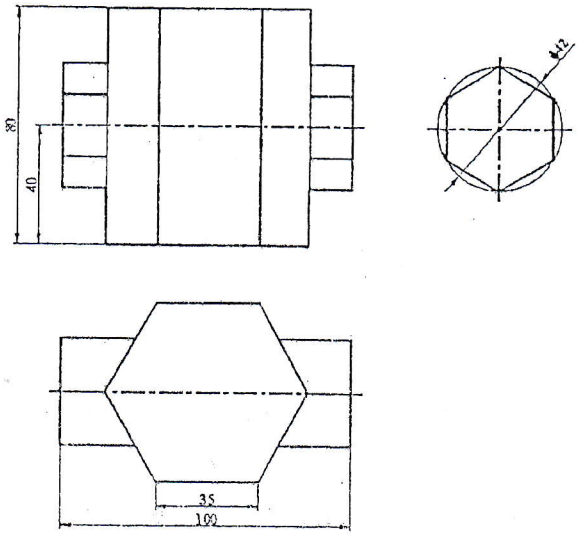
1. Draw an ellipse of Major axis 90 mm and minor axis 66 mm. [4]
2. A regular pentagon ABCDE, of 25 mm side, has its side BC in HP. Its plane is perpendicular to the HP and inclined at 45° to the VP. Draw the projections of the pentagon when its corner nearest to VP is 10 mm from it. [5]
3. Draw orthographic projections with full sectional front view, side view and top view of the pictorial drawing as shown in figure below. [15]



4. A right circular cone is cut as shown in given figure. Develop its lateral surface. [10]



5. Draw the lines of intersection of the surfaces of geometrical solids shown in figure below. [6]



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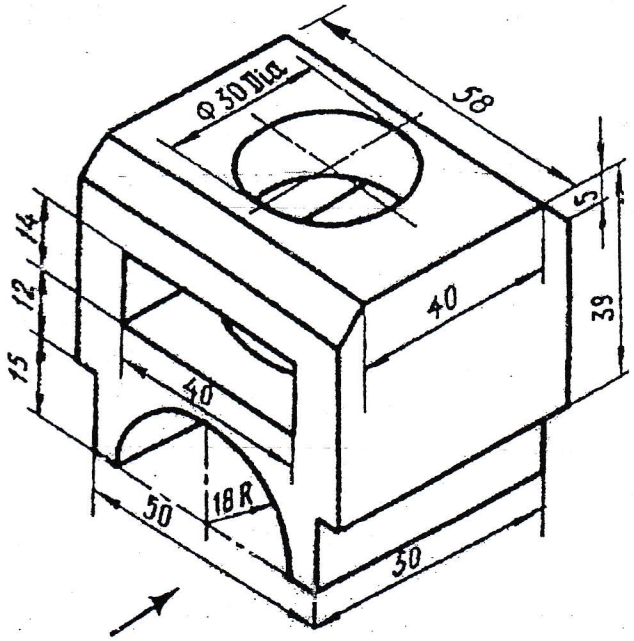
05 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2075 Ashwin

Exam.	Back		
Level	BE	Full Marks	40
Programme	All (Except B. Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

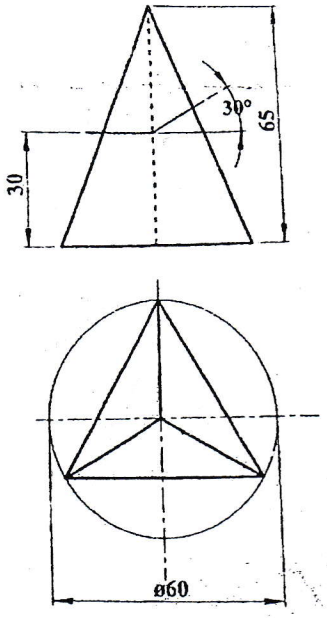
Subject: - Engineering Drawing I *(ME401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

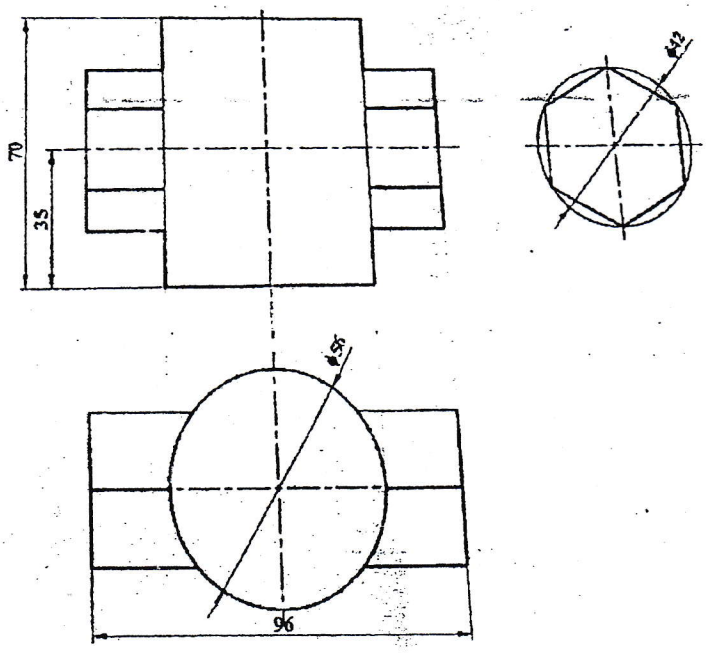
1. Draw helix having a pitch of 50 mm on a cylinder with the diameter of 40 mm and height of 75 mm. [5]
2. ABC is a triangular plane with side AB = 30 mm and sides BC = CA = 50 mm. Side AB is contained by HP and is perpendicular to VP. Draw its projections when its top view is an equilateral triangle and the nearest point A is 15 mm away from VP. Also find its inclination with the HP. [5]
3. Draw and dimension orthographic projections with full sectional side view, front view and top view of the pictorial drawing as shown in figure below. [14]



4. Make complete orthographic projections of a solid cut by planes as shown in figure below. Find the true shapes of the sections. Construct the development of all the surfaces of the solid. [10]



5. Draw the effects of intersection of the surfaces of geometrical solids shown in figure below. [6]



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05 TRIBHUVAN UNIVERSITY

INSTITUTE OF ENGINEERING

Examination Control Division

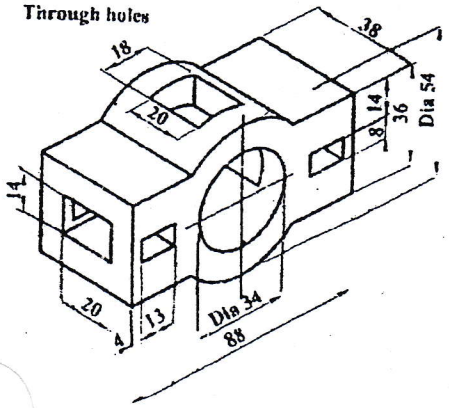
2074 Ashwin

Exam.	Back		
Level	BE	Full Marks	40
Programme	All (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

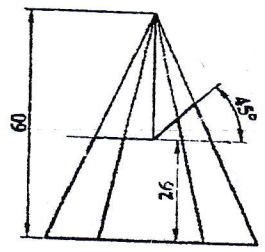
Subject: - Engineering Drawing I *(ME401)*

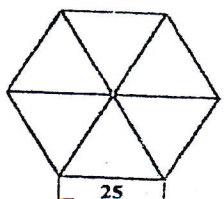
- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

1. Draw an involute of an regular square of side 20mm. [3]
2. A straight line AB 80mm long is inclined at 30° to the HP and 45° to the VP. Its midpoint is 30mm above the HP and 35mm in front of VP. Draw its projection. [5]
3. Draw complete Orthographic views with sectional front view of the figure below. [14]

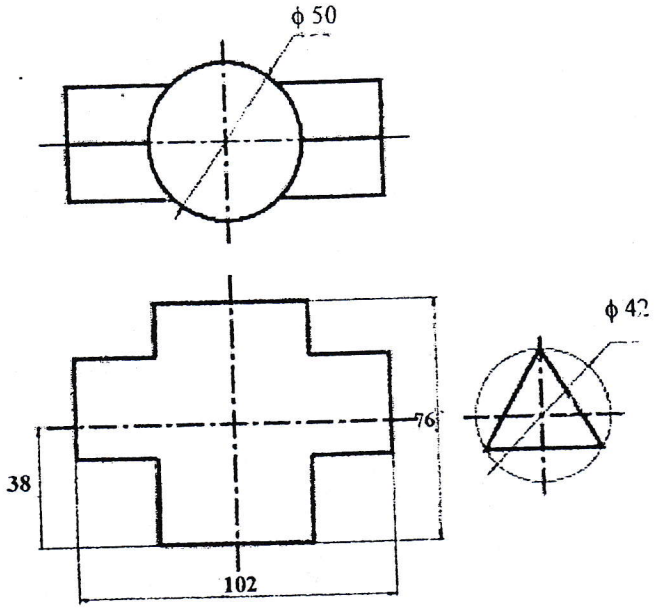


4. Make a complete orthographic drawing of geometrical solid cut by a plane as shown in figure below. Find the true shape of the section. Construct the development of the surfaces of the solid. [12]





5. Draw the line of intersection of the surfaces of the solids shown in figure below. [6]



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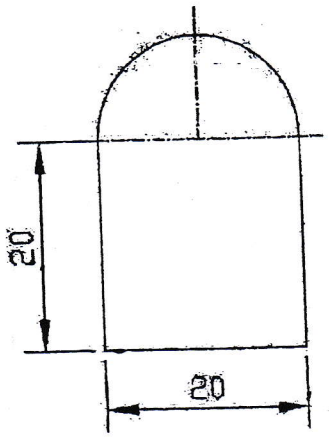
05 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2074 Chaitra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All (Except B. Arch.)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

Subject: - Engineering Drawing I *(ME401)*

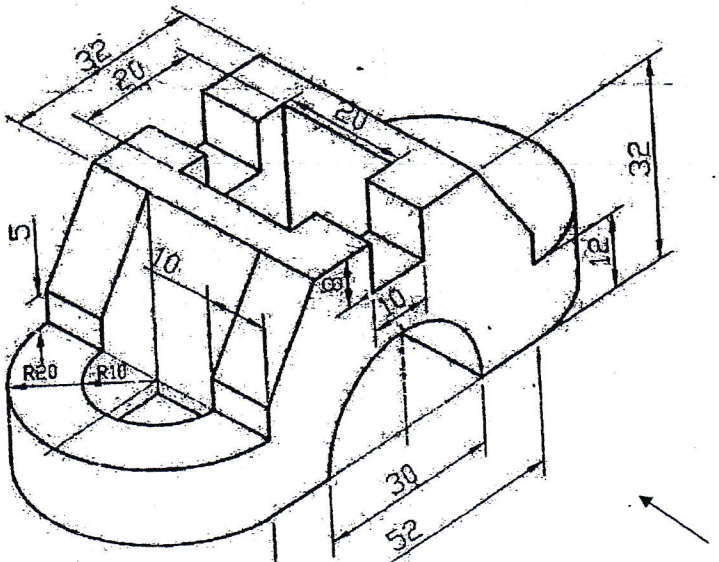
- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

1. Geometrically construct one complete rotation of an involute curve on the solid with cross sectional shape as given in figure below. [5]

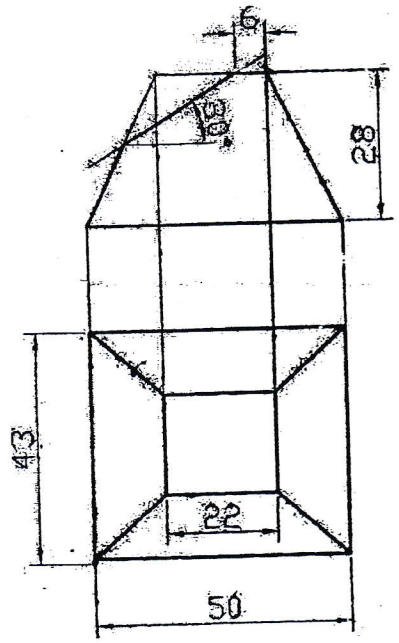


2. A regular pentagonal plane ABCDE of 20mm side has its edge BC resting on the HP. Its plane is perpendicular to the HP and inclined to the VP at 50°. Draw its projections when its corner nearer to the VP is 20 mm in front of the VP. [5]

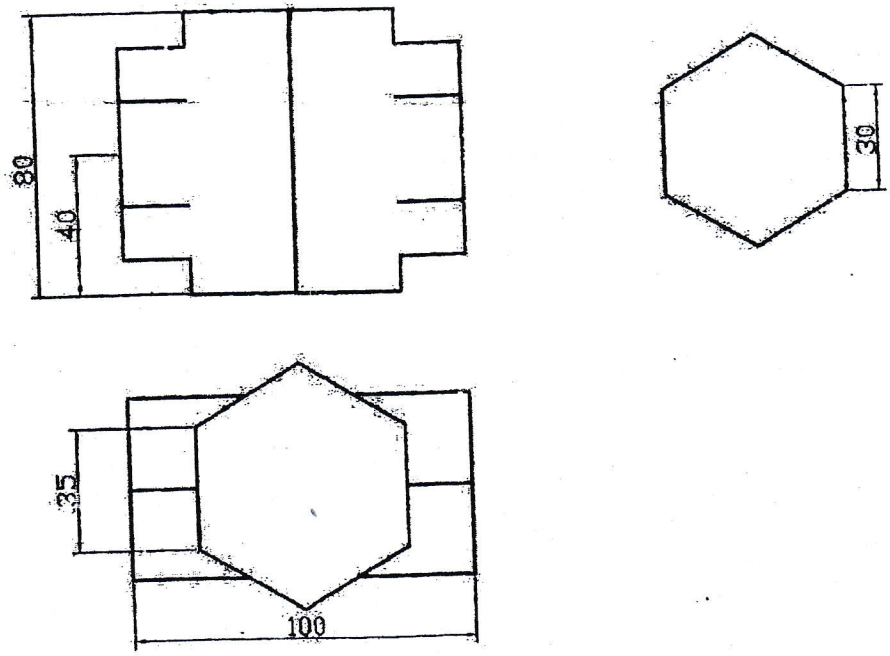
3. Draw orthographic projections with Sectional Side View, Top View and Front View of pictorial drawing as shown in figure below. [14]



4. Make a complete orthographic drawing of a pyramid cut by a plane as shown in figure below. Find the true shape and construct the surface development of the surface of the solid. [10]



5. Draw the complete orthographic drawing for the intersection of hexagonal prisms as shown in figure below and complete the intersections. [6]



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02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2073 Shrawan

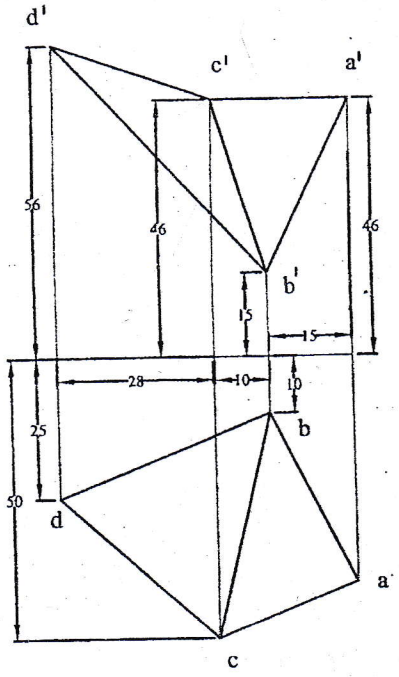
Exam.	New Back (2066 & Later Batch)		
Level	BE	Full Marks	40
Programme	ALL (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

Subject: - Engineering Drawing I *(ME401)*

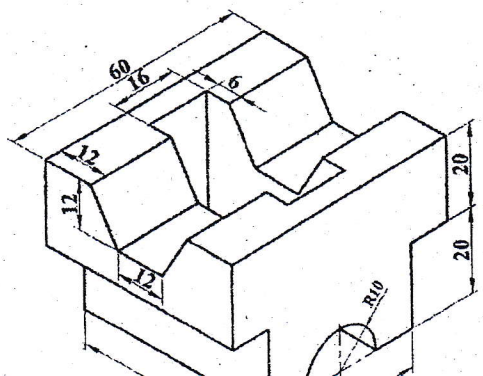
- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

1. The distances between the focii and between the vertices of a hyperbola are 100 mm and 60 mm respectively. Construct the hyperbola. [4]

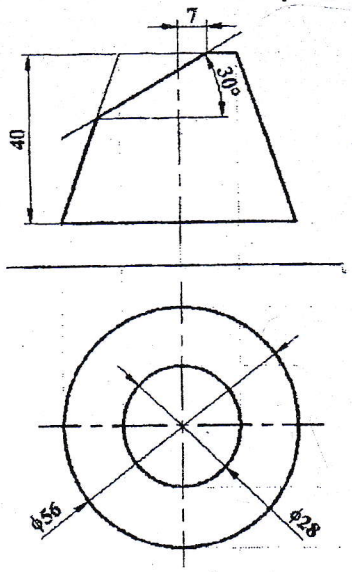
2. Determine the true size of the angle formed by the planes ABC and BCD shown in figure below. [5]



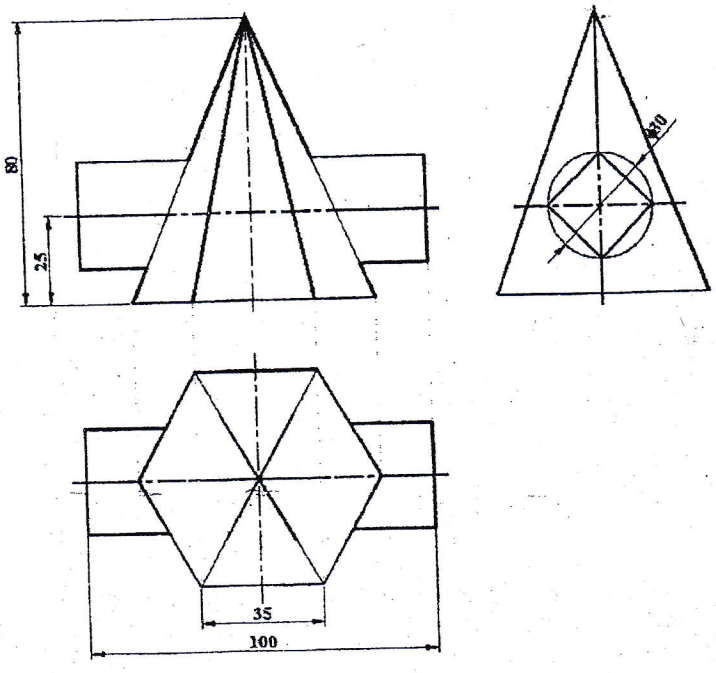
3. Draw orthographic projection with full sectional front view and full sectional side view of solid object shown in figure below. [14]



4. Make a complete orthographic drawing of the solid frustum cone cut by a plane as shown in given figure. Find the true shape of the section and draw the lateral surface development of the lower portion of the solid. [12]



5. Draw the lines of intersection of the surfaces for given orthographic drawing in figure below. [5]



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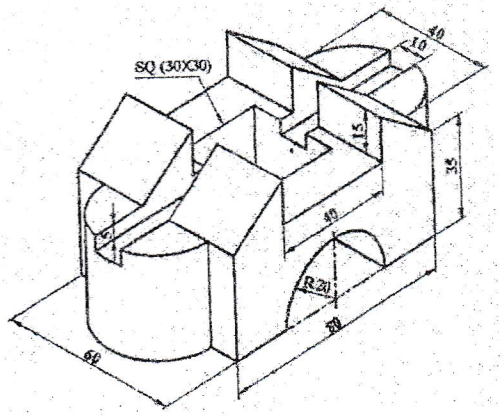
05 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2073 Chaitra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

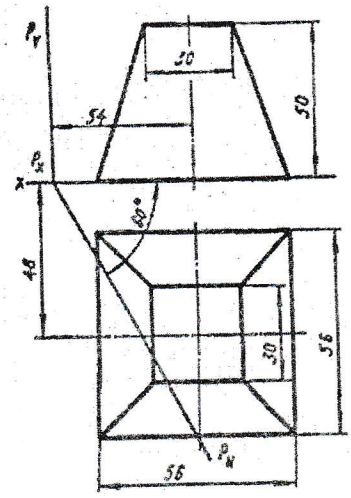
Subject: - Engineering Drawing I *(ME401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

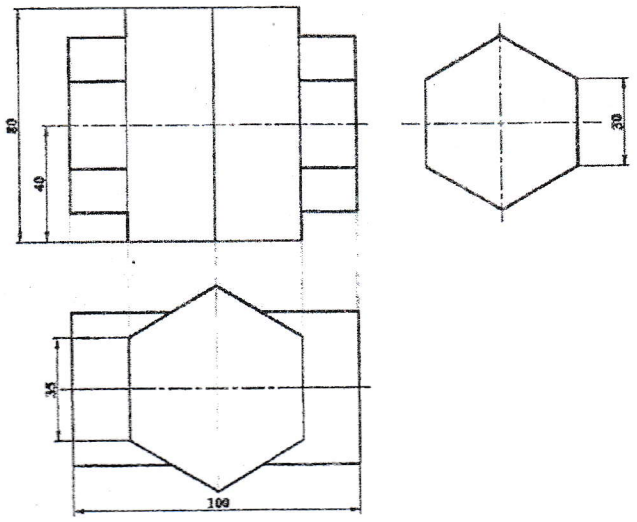
1. Construct an ellipse of major axis 120mm and minor axis 80mm. [3]
2. A regular hexagon ABCDEF of 25 mm side rests on one of its corner on the HP. Its plane is perpendicular to the VP and inclined to the HP at 30°. Draw its projections when its corner nearer to the VP is 15 mm in front of it. [5]
3. Draw orthographic projections with full sectional front view, side view and top view of pictorial drawing as shown in figure below. [14]



4. Make a complete orthographic drawing of a solid cut by a plane as shown in below figure. Find the true shape of the section. Construct the development of surfaces of the solid. [12]



5. Draw the lines of intersection of the surfaces of geometrical solids in below figure. [6]



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02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2072 Kartik

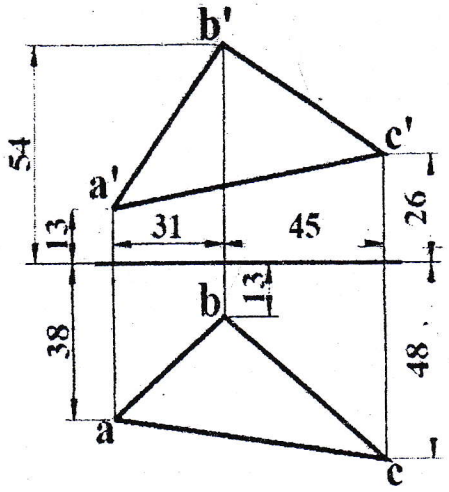
Exam.	New Back (2066 & Later Batch)		
Level	BE	Full Marks	40
Programme	All (Except B. Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

Subject: - Engineering Drawing I *(ME401)*

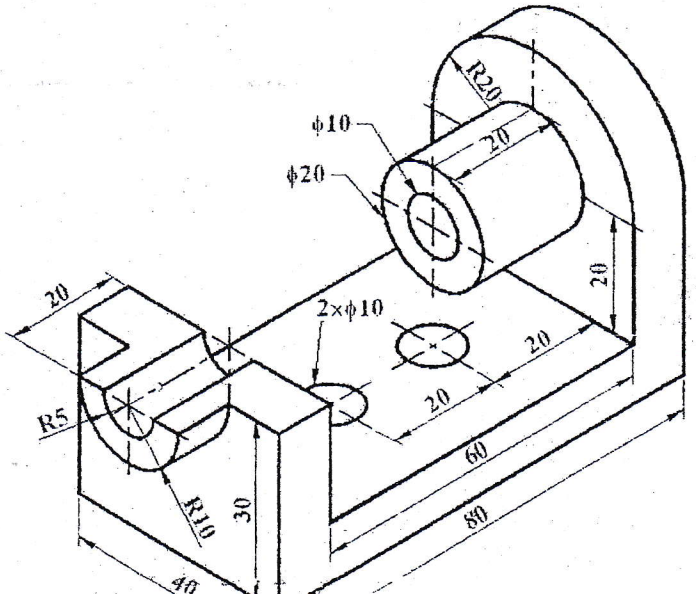
- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

1. Draw two circles with radii 15 mm and 20 mm respectively with their centers lying on a horizontal line and 60 mm apart. Draw an arc tangent of radius 40 mm outside to both the circles. [3]

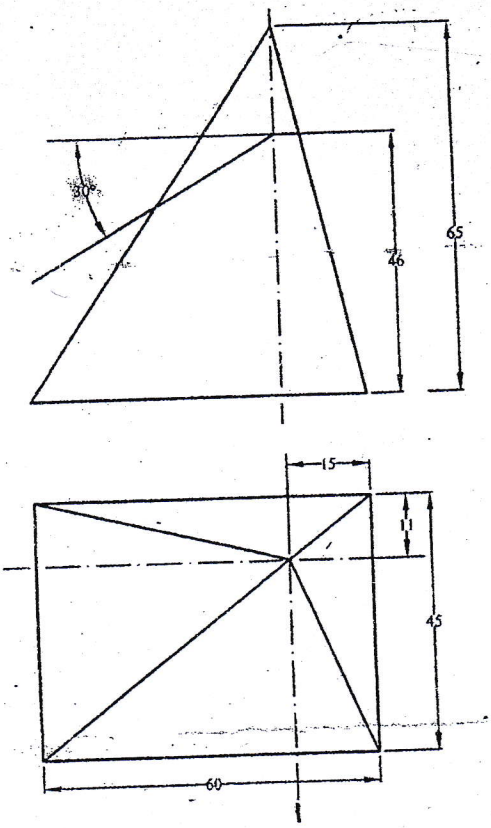
2. Reproduce the given views of the plane shown in figure below. Determine its true perimeter and true inclination with the HP. [5]



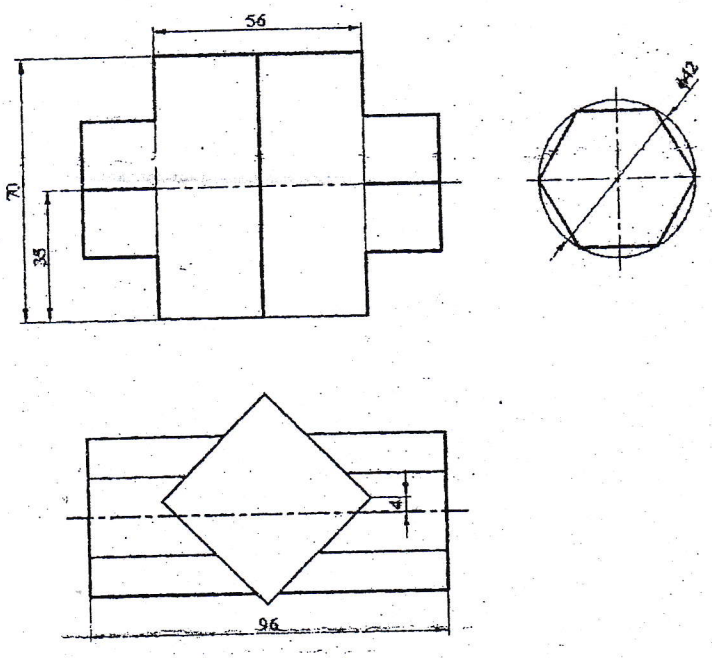
3. Pictorial view of an object is shown in figure below. Draw (with dimension) its (a) sectional front view, (b) side view and (c) top view. [15]



4. Complete the given orthographic views of geometrical solid cut by plane shown in figure below and develop the complete surfaces. [10]



5. Draw the lines of intersection of the surfaces of geometrical solids shown in figure below: [5]



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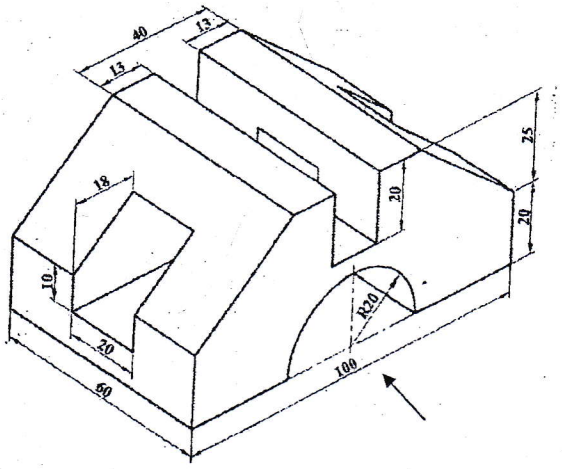
02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2072 Chaitra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All (Except B. Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

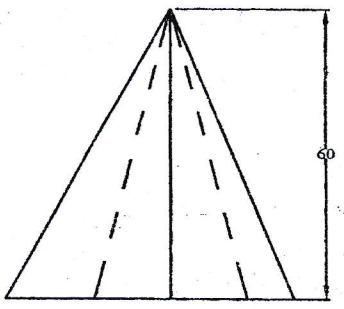
Subject: - Engineering Drawing I *(ME401)*

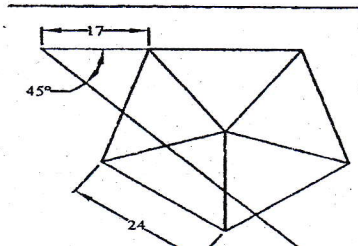
- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

1. Draw an involute of the regular hexagon having side length 15 mm. [4]
2. A square lamina ABCD of 30 mm side is perpendicular to VP and inclined to HP at 45°. Its side BC lies in HP. Draw its projection when the nearest side is 15 mm in front of VP. [5]
3. Draw the views of the objectives given in figure below with full sectional front view, full sectional side view and top view. Also dimension the views. [14]

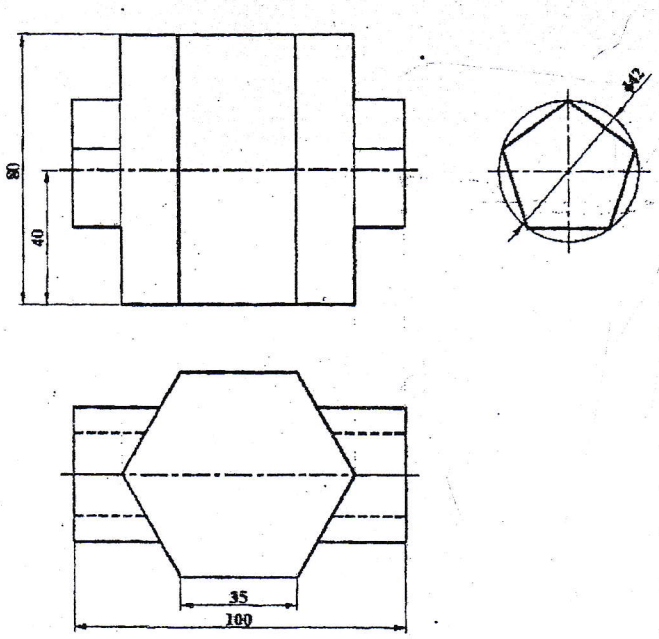


4. Complete orthographic views of the right solids shown in figure below cut by the plane. Find the true shape of the section. Then draw development of surface. [12]





5. Draw the intersection profile of intersecting solid objects in figure below. [5]



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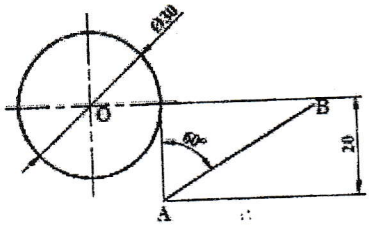
02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2071 Shawan

Exam.	New Back (2066 & Later Batch)		
Level	BE	Full Marks	40
Programme	All (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

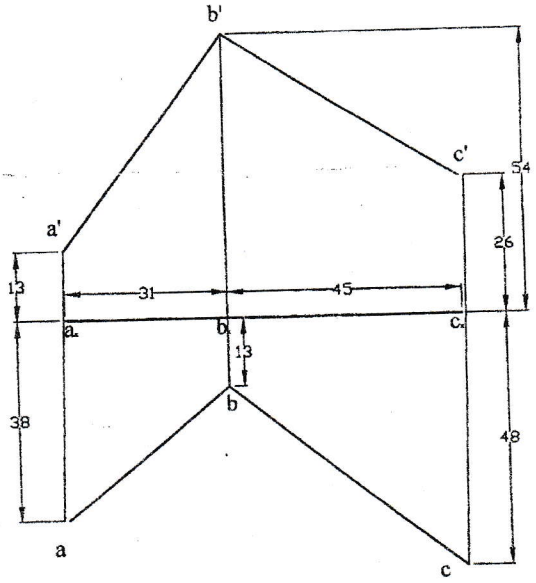
Subject: - Engineering Drawing I *(ME401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

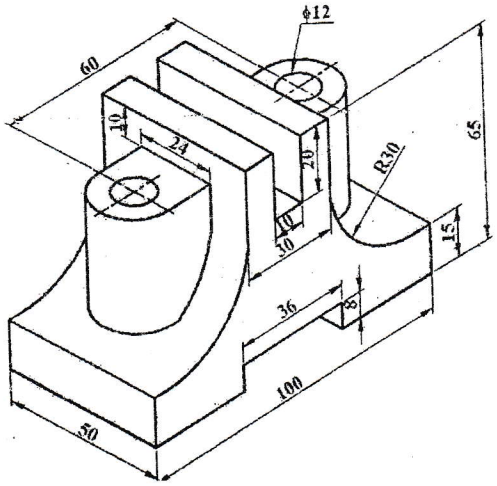
1. Figure below shows a straight line and a circle. Draw an arc of radius 18 mm tangent to both the given line and circle and outside to the given circle. [3]



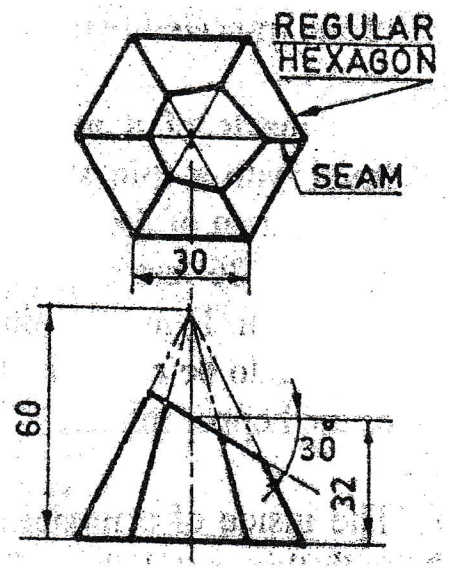
2. Find the true angle between line AB and BC. [5]



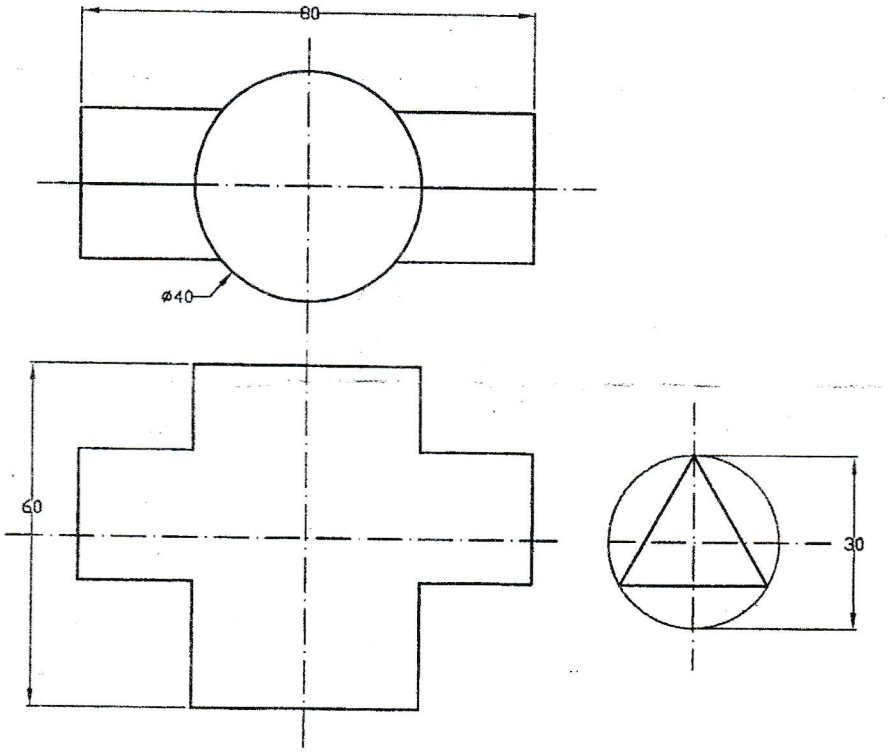
3. Pictorial view of an object is shown in figure below. Draw (with dimension) its (a) sectional front view, (b) sectional side view and (c) top view. [15]



4. Draw a complete orthographic drawing of a solid cut by a plane as shown in figure below. Find the true shape of the section. Then develop lateral surface of the solid. [12]



5. Draw the given views assigned and complete the intersection figure below. [5]



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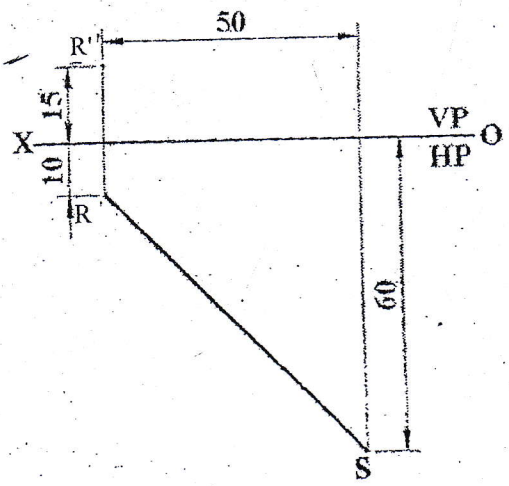
02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2071 Chaitra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

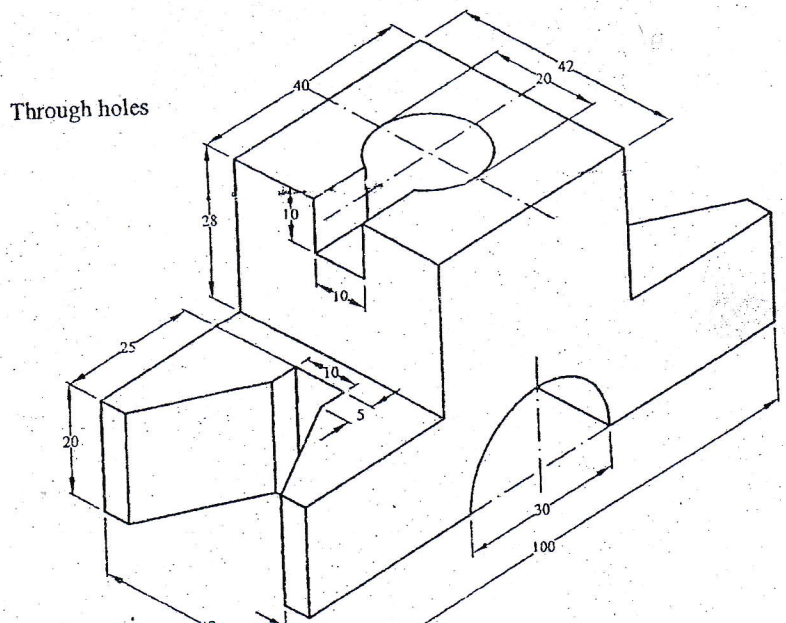
Subject: - Engineering Drawing I *(ME401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

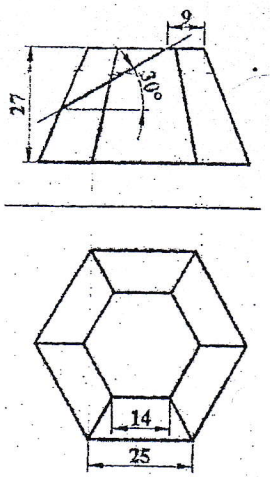
1. Construct an ellipse having a major axis 80 mm and minor axis 60 mm. [3]
2. Top view of a straight line RS and the front view of its end R are shown in figure below. Complete its projection if it is inclined at 30° to the HP. Also determine its true length and true inclination with the VP. [5]



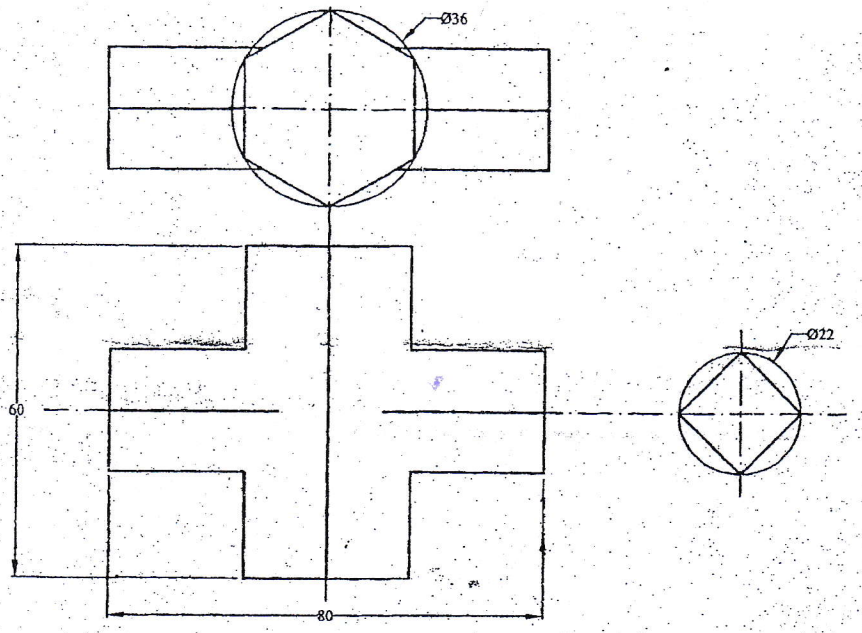
3. Draw orthographic projections with full sectional front view, top view and side view of the given object shown in figure below. [15]



4. Draw a complete orthographic drawing of a solid cut by a plane as shown in figure below. Find the true shape of the section. Then develop the surface of the solid. [12]



5. Draw the given views assigned and complete the intersection for figure below. [5]



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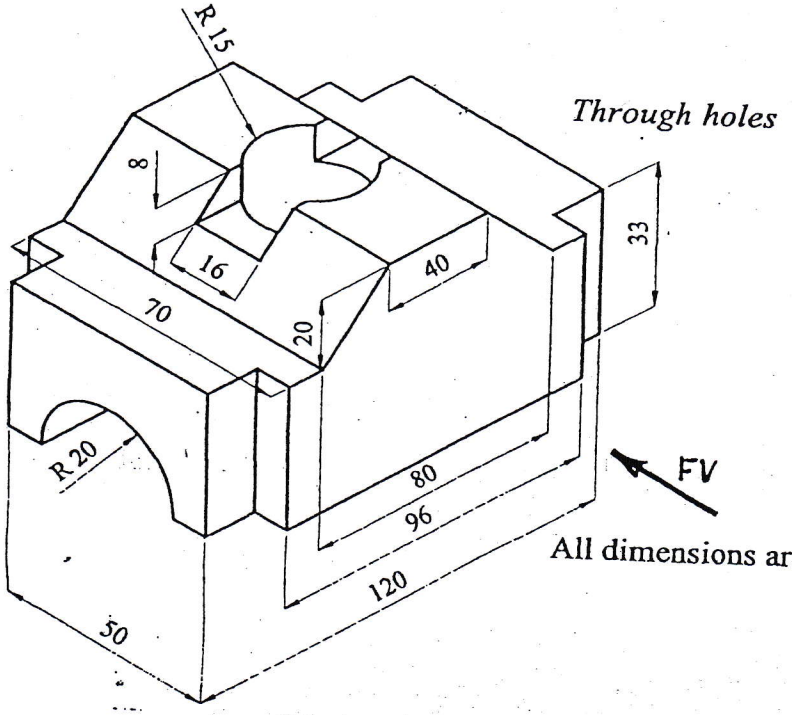
02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2070 Ashad

Exam.	New Back (2066 & Later Batch)		
Level	BE	Full Marks	40
Programme	All (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

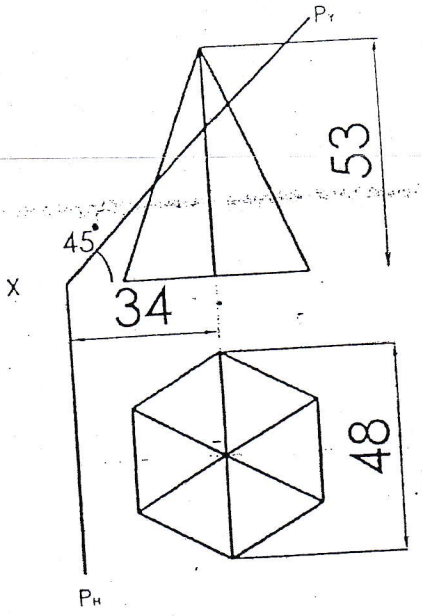
Subject: - Engineering Drawing I *(ME401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt <u>All</u> questions.*
- ✓ *The figures in the margin indicate <u>Full Marks</u>.*
- ✓ *Assume suitable data if necessary.*

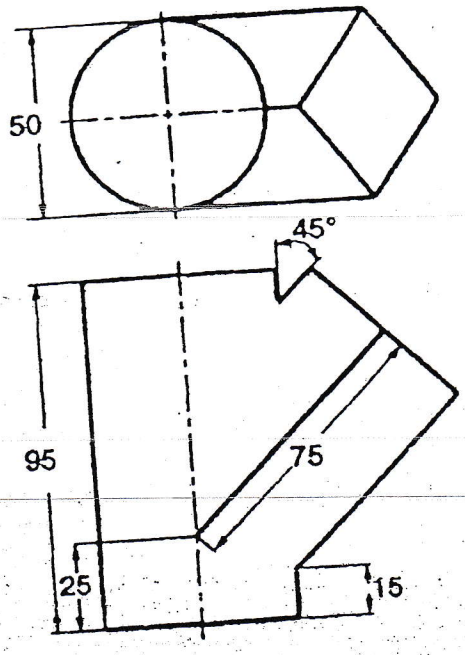
1. Construct an Archimedian's spiral curve of one convolution of diameter 120mm. [4]
2. Draw three orthographic projections of a rectangular lamina 60mm×40mm, which is parallel to H.P with one of its side inclined at 30 degree to V.P. The corner nearer to V.P is 25mm in front of V.P and 30mm above H.P. [5]
3. Pictorial view of an object is shown in figure below. Draw the views with sectional front view. [14]



4. Make complete the orthographic view of geometrical solid cut by plane as shown in figure below. Find the true shape of the section. Construct the development of the surfaces of the solid. [12]



5. Draw the common curve of intersection of a prism with a cylinder as shown in figure below. [5]



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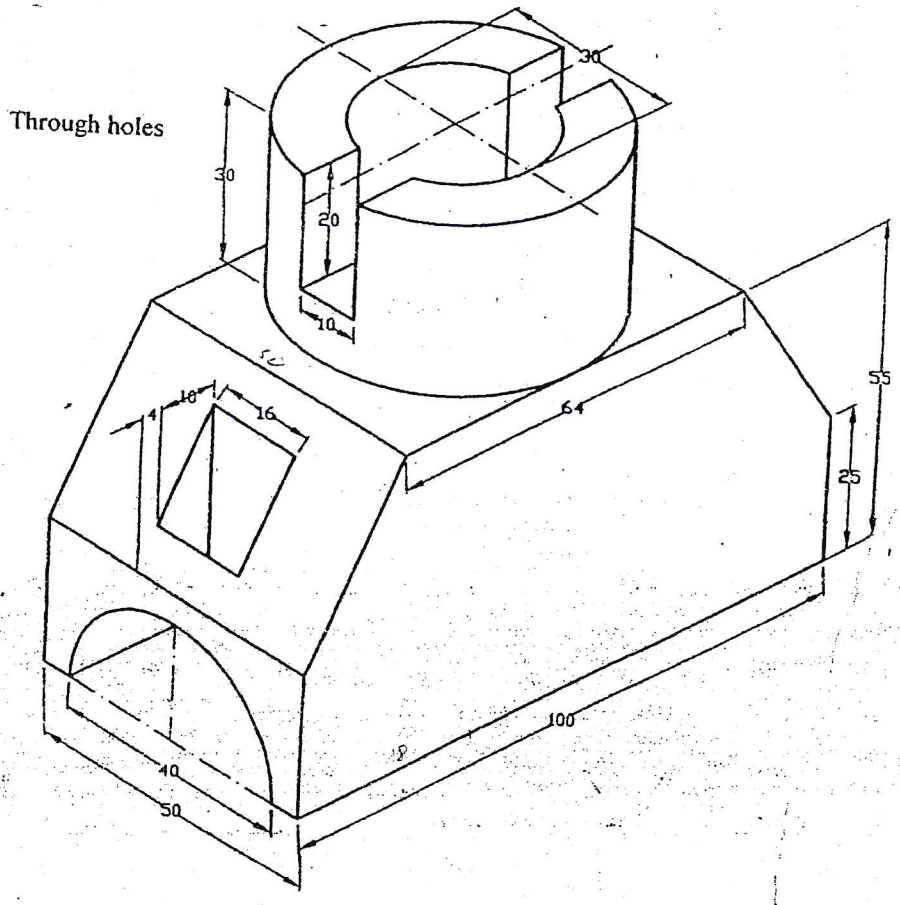
02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2070 Chaitra

Exam.	Regular		
Level	BE	Full Marks	40
Programme	All (Except B.Arch)	Pass Marks	16
Year / Part	I / I	Time	3 hrs.

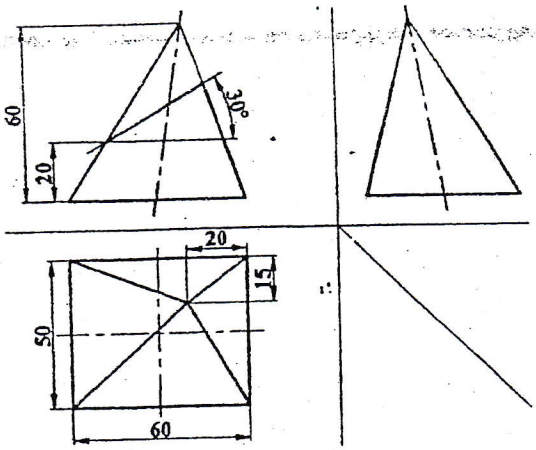
Subject: - Engineering Drawing I *(ME401)*

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ *Attempt **All** questions.*
- ✓ *The figures in the margin indicate **Full Marks**.*
- ✓ *Assume suitable data if necessary.*

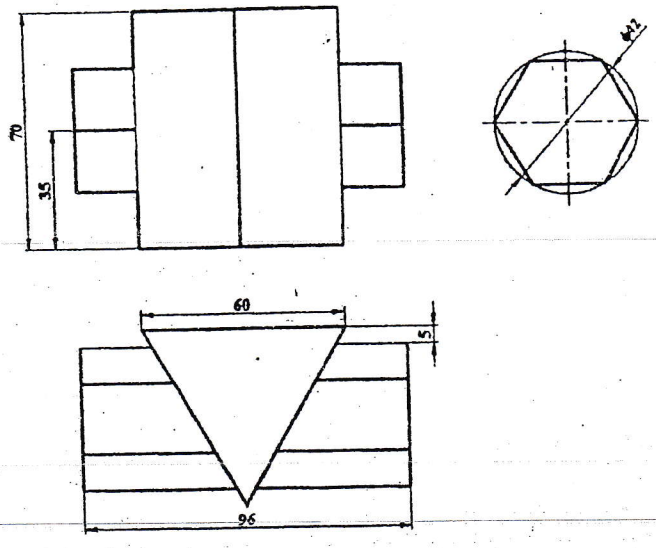
1. Draw an involute of circle having diameter of 40 mm. [3]
2. A regular pentagonal plane ABCDE of 20 mm side has its edge BC resting on the HP. Its plane is perpendicular to the HP and inclined to the VP at 45°. Draw its projections when its corner nearer to the VP is 18 mm in front of the VP. [5]
3. Draw orthographic projections with full sectional front view, top view and side view of the given isometric drawing in figure below. [15]



4. Draw a complete orthographic drawing of a solid cut by a plane as shown in figure below. Find the true shape of the section. Then develop the surface of the solid. [12]



5. Draw the lines of intersection of the surfaces of geometrical solids shown in figure below. [5]



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