MODEL TEST PAPER – 2
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 60*

Instructions to Candidates :

(1) Section – A is **Compulsory**.

(2) Attempt any **Five** questions from Sections B and C.

(3) Select atleast **Two** questions from Sections B and C.

SECTION – A

(*Marks : 2 Each*)

1. (*a*) Show the Aligned system of Dimensioning with the help of a sketch.

(*b*) Write "ENGINEER" using single stroke capital letters.

(*c*) What do you mean by Representative Fraction (R.F.) in scales?

(*d*) What is a Profile plane and state its use?

(*e*) Draw the projection of a point 'P' when it is lying on the XY line i.e. where HP and VP meet each other.

(*f*) Draw free hand the trace of a line when it is parallel to VP and inclined to HP. Name the trace.

(*g*) What do you mean by right regular prism? Show it by a sketch.

(*h*) Differentiate between AVP and AIP.

(*i*) What is the importance of Development in a manufacturing industry?

(*j*) Differentiate between First Angle and Third angle Projections.

SECTION – B

(*Marks : 8 Each*)

2. The length of the Khandala tunnel on the Mumbai-Pune express way is 330 m. On the road map it is shown by 16.5 cm long line. Construct a diagonal scale to show meters and to measure upto 400 m. Show thelength of 289 metre long bridge on the scale.

3. A line CD 90 mm long measures 72 mm in elevation and 65 mm in plan. Draw the projections of the line when point C is 20 mm above HP and 15 mm in front of V.P.

4. A cylinder of base dia. 60 mm and height 80 mm rests in HP in such a way that its axis is inclined at 60° to HP. Draw its projections.

5. A square pyramid with a base side of 45 mm and an axis length of 90 mm is resting in HP in such a way that its base edges are equally inclined to VP. A vertical sectional plane passing through the mid points of the two adjacent sides of the base (away from XY) cuts the pyramid. Draw its projections.

SECTION – C

(*Marks : 8 Each*)

6. Draw the development of the funnel as shown in the figure below.

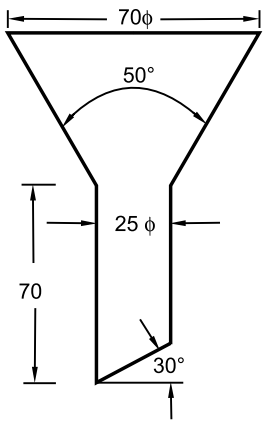


Fig. 1.

7. Draw the isometric view of a sphere of ϕ50 placed centrally on a cube of side 60 mm.

8. A cylinder of 50 mm dia and 100 mm height stands on its base in HP. It is completely penetrated by a horizontal cylinder of the same size. The axes of both the cylinders bisect each other. Draw its projections showing curve of intersection.

9. Draw elevation in the direction of arrow, plan and right hand side view of the given figure in First angle projections. Show all dimensions in alligned system of dimensioning.

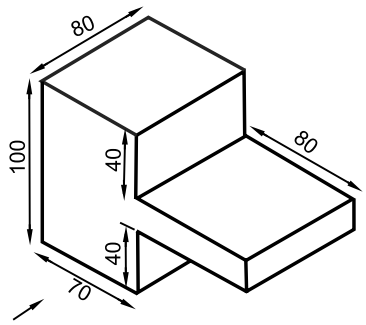


Fig. 2.

MODEL TEST PAPER – 3
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 60*

Instructions to Candidates :

(1) Section – A is **Compulsory**.

(2) Attempt any **Five** questions from Sections B and C.

(3) Select atleast **Two** questions from Sections B and C.

SECTION – A

(*Marks : 2 Each*)

1. (*a*) What do you mean by conventions ?

(*b*) What is the meaning of 7:4 ratios in lettering ?

(*c*) What are uses of diagonal scale ?

(*d*) What are different methods of development of surfaces ?

(*e*) What is cutting plane ?

(*f*) What are oblique solids ?

(*g*) What is difference between a plane and a lamina ?

(*h*) Define a straight line ?

(*i*) How is a point determined in space ?

(*j*) Draw a symbol of third angle projections ?

SECTION – B

(*Marks : 8 Each*)

2. A straight line AB 50 mm long makes an angle of 45° to the V.P. The end A is 15 mm from the V.P. and 12 mm from the H.P. Draw the top view and front view of the line AB.

3. Draw free hand sketches of foot step bearing (Front and top views). Show the mean dimensions also.

4. Write in double stroke vertical and inclined style, the following statement using ratio 7:4.

TIT FOR TAT

5. A vertical cylinder of 45 mm diameter and height 70 mm resting on its base on H.P. is completely penetrated by another cylinder of same diameter and length. Their axes bisect each other at right angles and are parallel to V.P. Draw their projections showing lines of interpenetration on two cylinders ?

SECTION – C

(*Marks : 8 Each*)

6. Draw the projections of a square pyramid of base edges 30 mm and axis 54 mm, resting on its base on HP with one base edges parallel to V.P. and axis perpendicular to the H.P.

7. (*a*) A square prism of side 30 mm 40 mm height is resting on H.P. A vertical square bore of 10 mm side is cut through its face reaching other square face of the prism. Draw the isometric projection of the prism.

(*b*) A cube of 40 mm edges is resting on its one of its faces on H.P. with a vertical face inclined to 30° to V.P. It is cut by a section plane parallel to the V.P and passes 15 mm away from the axis. Draw its top view and sectional front view.

8. An equilateral triangle of 30 mm sides has a corner in V.P. and 30 mm away for H.P. Draw its projections and traces when the plane is parallel to the HP and one of its sides inclined at 45° to the V.P.

9. A pentagon of 25 mm base edges and 50 mm long, resting on its base with an edge of base at 45° to the V.P. The prism is cut by a section plane V.T. inclined at 30° to the H.P. and passes through a point 25 mm from the base along its axis. Develop its lateral surface of the truncated prism.

MODEL TEST PAPER – 4
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 80*

Note : 1. All the questions carry marks as indicated.

2. Answer **Three** questions from Section A and **Three** questions from Section B.

3. Due credit will be given to neatness and adequate dimensions.

4. Use of drawing instruments is permitted.

SECTION – A

1. (*a*) A line AB, inclined at 40° to the V.P. has its ends 50 mm and 20 mm above the H.P. The length of its front view is 65 mm and its V.T. is 10 mm above the H.P. Determine the true length of AB, its inclination with the H.P. and its H.T. (7)

(*b*) The distance between Nagpur and Chandrapur is 156 km. They are shown 156 mm apart on a road map. Draw diagonal scale with this R.F. (6)

2. (*a*) A link AB 100 mm long is oscillating about its midpoint. The angle of oscillation is 150° and the rate being 300° per sec. A point P, initially A on the link moves along the link (to and fro) at the rate of 200 mm per second. Assuming both the motions taking simultaneously draw the locus of point *P* for a period of one second. (6)

(*b*) Two mangoes P and Q, on a tree are respectively 3 metres and 5 metres above the ground but on opposite side of a wall of 0.5 metre thick. The mango P is 2.5 metres from the wall and mango Q is 4 metres from the wall. The distance measured between the mangoes along the ground and parallel to the wall is 4.8 metres. Determine actual distance between the two mangoes. Assume that the wall is perpendicular to both the reference planes. (7)

3. (*a*) A hexagonal pyramid having base ABCDEF and apex O, is lying on its triangular face OED on the ground with base perpendicular to V.P. Draw its projection and define the position of the followings with respect to reference planes :

(*a*) triangular faces OCD and OAB

(*b*) axis

(*c*) base ABCDEF. (7)

(*b*) Draw a triangle PQR with PQ = 120 mm, ≤ RPQ = 30° and, ≤ PQR = 60°. Draw an ellipse circumscribing P, Q and R by concentric circle method. Also draw normal and tangent at a point 30 mm ON the major axis. (6)

4. (*a*) Draw a circle of 40 mm diameter. The diameter AB is vertical with end A at top. Trace the curve generated by end A when the circle rolls without slipping on a horizontal line for three-fourth rotation and then on vertical line for its next half rotation. Name the curve traced by end A. (7)

(*b*) Two lines AB and AC makes an angle of 120° between them in their front view and top view. AB is parallel to both the planes. Determine the real angle between them. (6)

5. A tetrahedron of 75 mm long edges has one edge parallel to the H.P. and inclined at 45° to the V.P. while a face containing that edge is vertical. Draw its three views. (13)

SECTION – B

6. A point P starting from the base circle of a cone, reaches the apex while moving around the axis through two complete turns. Assuming the movement of P towards the apex (measured parallel to the axis) to be uniform with its movement around the axis, draw the projections and the development of the surface of the cone showing the path of P in each. Diameter of the base of the cone 75 mm and axis 100 mm long. (13)
7. A frustum of hexagonal pyramid is standing on its larger base on the ground with side of base parallel to V.P. The side of bottom base is 35 mm and of top base is 20 mm. The axis of the frustum is 60 mm long. An end of the thread is tied to one of the corners of bottom base and thread is wound on the lateral surface, following shortest path, so that it will pass through opposite corner of top base and then brought back to same corner of bottom base. Determine the shortest length of thread required and show the path followed by thread in FV and TV. (14)
8. A cone, base 45 mm and axis 60 mm long, is resting on its base on HP, is penetrated by a horizontal square prism of base side 20 mm and axis 70 mm long. The axis intersects at right angles. The side faces are equally inclined to H.P. The axis of the square prism is 25 mm from the base of the cone. Draw the projections of the solids showing curves of intersection in both views. (14)
9. Fig.1 shows two views of an object. Do not copy the given views but draw an isometric view to isometric scale. (13)
10. Draw the isometric projection of the object whose orthographic views are shown in Fig. 2. (13)

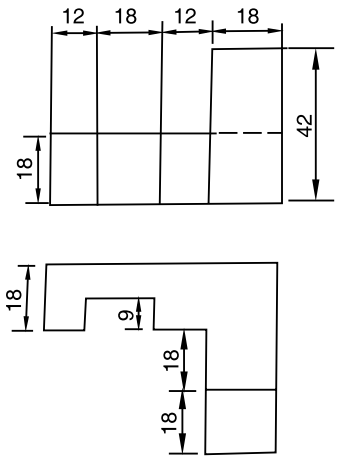


Fig. 1.

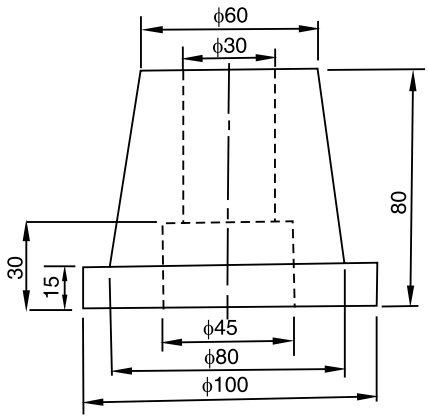


Fig. 2.

MODEL TEST PAPER – 5
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 80*

Note : 1. Separate answer books must be used for each section.

2. All questions carry marks as indicated.

3. Answer **Three** questions from Section A and **Three** questions from Section B.

4. Due credit will be given to neatness and adequate dimensions.

SECTION – A

1. (*a*) The distance between two places is 350 km and corresponding distance shown on map measures 7 cm. Draw a diagonal scale showing single km. The scale should be long enough to read upto 700 km. What is its R.F.? Also indicate on this scale 300 km, 55 km and 8 km. (7)

(*b*) Two cranks AB and CD are connected by a link BD. The cranks oscillate about their ends A and C. Draw the locus of the midpoint of BD. Given AB = 100 mm, CD = 140 mm, BD = 80 mm and AC = 160 mm. (6)

2. (*a*) A motorcycle wheel has 0.5 metre diameter. Draw the locus of a point on its circumference for one complete revolution of the wheel when it passes over segmental arched culvert of radius 1.50 metres at a speed of 25 kms per hour. Assume any suitable scale. Name the curve. (7)

(*b*) Draw the Archemedian spiral of one and half convolution of which A is the pole and AB = 25 mm, AC = 30 mm, $\angle$ BAC = 30°, B and C points lie on the Archemedian spiral. Draw the Tangent and Normal to this curve at the Point P which is at a distance of 8 cm from the pole. (6)

3. (*a*) The guy ropes of two poles are 12 m apart, are attached to a point 15 metres above the ground on the corner of a building. The points of attachment are 8 m and 5 m above the ground and the ropes make 45° and 30° respectively with the ground. Draw the projections and find the distances of the poles from the building and the lengths of the guy-ropes. (7)

(*b*) A line PQ, 100 mm long is inclined at 45° to the H.P. and 30° to the V.P. Its end P is in the second quadrant and Q is in fourth quadrant. A point R on PQ, 40 mm from P is in both the planes. Draw the projections of PQ. (6)

4. (*a*) An equilateral triangle ABC having side length as 60 mm is suspended from the point Q on the side BC, 20 mm from B in such a way that the plane of the triangle make an angle of 45° with the V.P. The point Q is 25 mm above HP and 45 mm in front of V.P. Draw the projections of the triangle. (7)

(*b*) An isoceles triangle PQR having the base PQ 50 mm long and altitude 75 mm has its corners P, Q and R, 25 mm, 50 mm and 75 mm respectively above the ground. Draw its projections. (6)

5. A square pyramid base 38 mm and axis 50 mm long is freely suspended from one of the corners of its base. Draw its projections, when the axis as a vertical plane makes an angle of 45° with the V.P. Draw its three views. (13)

SECTION – B

6. A hollow right circular cone made of paper is opened out and the development is a semicircule of 50 mm radius. A full circle of the largest possible size is drawn in ink inside this semicircle and the paper is folded back to its shape of cone. Draw the top view and front view of the cone keeping it in simple position and show the ink lines in these views. (13)
7. A pentagonal pyramid, edge of the base 25 mm long and height 50 mm is resting on the ground on a corner of its base in such a way that the slant edge containing that corner makes an angle of 60° with H.P. and is parallel to V.P. It is cut by a section plane at 30° with V.P. perpendicular to H.P. and passing through the point on axis at a distance of 8 mm from its base. Draw sectional front view. Project another front view so that true shape of section will be visible. Draw development of remaining surface of cut pyramid. (14)
8. The Vertex angle of the cone just touches the edes of vertical hexagonal pyramid 125 mm in height is 45°. Draw the projections of the pyramid on a 45° inclined plane when the former is truncated by a plane making 45° with the axis and bisecting the axis. (13)
9. What is Isometric Projection ? Draw an Isometric Scale and draw the isometric projection of a solid whose views are shown in Fig. 1. (13)
10. Draw the Isometric view of an object whose orthographic projections are shown in Fig. 2. (13)

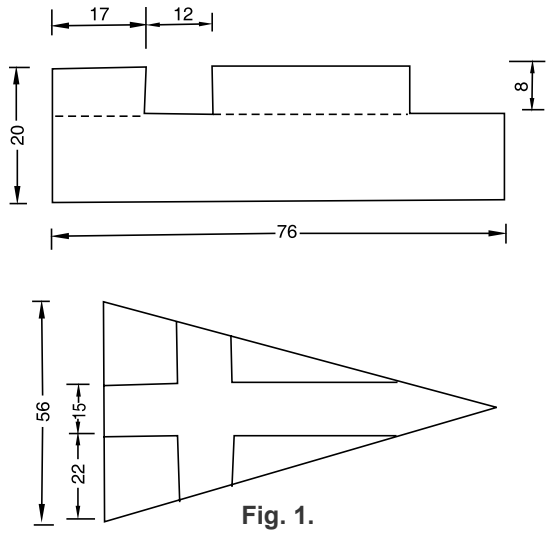


Fig. 1.

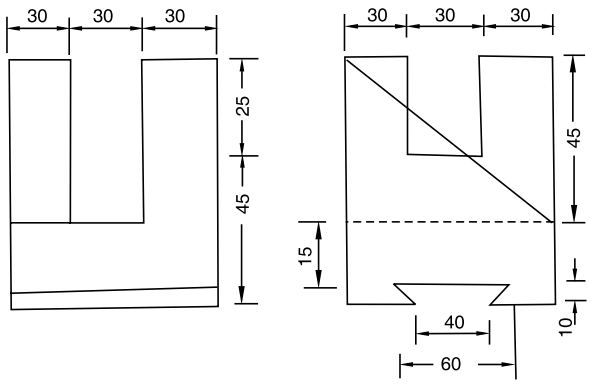


Fig. 2.

MODEL TEST PAPER – 6
ENGINEERING DRAWING AND COMPUTER GRAPHICS

(B. Tech., 1st & 2nd Semester)

Time : 3 hours *Maximum Marks : 60*

Note : *This paper consists of Three Sections. Section A is compulsory. Answer any Five questions from Sections B and C, selecting Two questions from each section. Assume any missing data suitably.*

SECTION – A

Marks : 2 Each

1. (*i*) What is Principle of Dimensioning ?
(*ii*) What is first angle projection method ?
(*iii*) What is true length of a line ?
(*iv*) What is solid of revolutions ?
(*v*) Define Isometric Scale.
(*vi*) What is importance of development of surface ?
(*vii*) Name different types of sectioning methods.
(*viii*) Define Auxiliary Plane.
(*ix*) Give applications of intersection of surfaces.
(*x*) What is vertical trace of a line ?

SECTION – B

Marks : 8 Each

2. Do free hand printing of any 8 letters in 8 mm size.

3. A line AB 80 mm long, makes an angle of 30°, with the V.P. and lies in a plane perpendicular to both the H.P. and the V.P. Its end A is in the H.P. and the end B is in the V.P. Draw its projections and show its traces.

4. Draw the projections of a square pyramid having one of its triangular faces in the V.P. and the axis parallel to and 40 mm below the H.P. base 30 mm side, axis 75 mm long.

5. A cube of 65 mm long edges has its vertical faces equally inclined to the V.P. It is cut by a section plane, perpendicular to the V.P., so that the true shape of the section is a regular hexagon. Determine the inclination of the cutting plane with the H.P. and draw the sectional top view and true shape of the section.

SECTION – C

Marks : 8 Each

6. A cylinder of 75 mm diameter and 125 mm height, stands on its base on the ground. It is penetrated centrally by a cylinder, 50 mm diameter and 125 mm long, whose axis is parallel to the H.P. but inclined at 30° to the V.P. Draw the projections showing curve of intersection.

7. Draw the development of the penetrated cylinders in Question 6.
8. The outside dimensions of a box made of 4 cm thick planks are 90 cm × 60 cm × 60 cm. The depth of the lid on the outside is 12 cm. Draw the isometric view of the box when the lid is 90° open.
9. Complete the given views of figure and draw its isometric object.

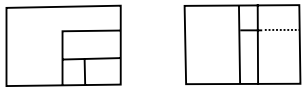


Fig. 1.

MODEL TEST PAPER – 7
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 60*

Note : *Question No. 1 is compulsory. Attempt other Five questions taking at least two from Sections A and B. Assume any missing data suitably.*

1. (*a*) Name different types of lines.

(*b*) What is third angle projection method ?

(*c*) Which projection method is used these days and why ?

(*d*) What is an Isometric View ?

(*e*) What is the application of projection of planes ?

(*f*) What is the principle of Sectioning ?

(*g*) Name the methods of determining the line of intersection between two surfaces.

(*h*) Define Section Planes.

(*i*) Give practical examples of development of surfaces.

(*j*) What is true shape of a section ?

SECTION – A

Marks : 8 Each

2. Do freehand printing of numerals 0 to 9 in 8 mm size.

3. A line AB, 80 mm long, makes an angle of 60° with the H.P. and lines in an auxiliary vertical plane, which makes an angle of 45° with the V.P. Its end A is 10 mm away from both the H.P. and the V.P. Draw the projections of AB and determine :

(*a*) its true inclination with the V.P., and (*b*) its traces.

4. A hexagonal prism, base 30 mm side and axis 75 mm long, has an edge of the base parallel to the H.P. and inclined at 45° to the V.P. Its axis makes an angle of 60° with the H.P. Draw the projections.

5. A cylinder, 65 mm diameter and 90 mm long, has its axis parallel to the H.P. and inclined at 30° to the V.P. It is cut by a vertical section plane in such a way that the true shape of the section is an ellipse having the major axis 75 mm long. Draw its sectional front view and true shape of the section.

SECTION – B

Marks : 8 Each

6. Two circular pipes of 75 mm and 50 mm diameters (inside) meet at 30°. The axes of both the pipes are in one plane and the 75 mm pipe is vertical. The thickness of the pipes is 6 mm in both cases. Draw the projections showing curves of intersection.

7. Draw the development of the lateral surface of the part P of the pyramid, the front view of which is shown in Fig. 1. The pyramid is hexagonal, two sides of the base parallel to the V.P.

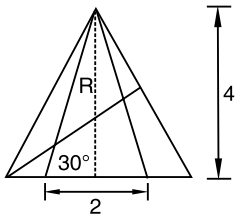


Fig. 1.

8. A right regular hexagonal prism, edge of base 20 mm and height 50 mm, has a circular hole of 20 mm diameter drilled centrally through it, along its axis. Draw its isometric projection.
9. Complete the given views of Fig. 2 and draw its isometric object.

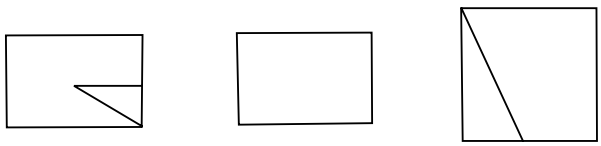


Fig. 2.

MODEL TEST PAPER – 8
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 60*

Note : *Section A is compulsory. Attempt any Five questions from Section A and C, selecting at least two questions from each section.*

SECTION–A

1. (*a*) How will you test the set-square and T-square ?
(*b*) List out the contents of the little block and the material list.
(*c*) Where and why a cutting plane is drawn in a drawing ?
(*d*) Why the conventional representation of common features are adopted on the drawing?
(*e*) What are the main requirements of lettering ?
(*f*) What do you mean by single stroke letters ?
(*g*) Give the various positions of isometric axes.
(*h*) Why the projection of an object are not drawn in second and fourth quardrants ?
(*i*) What is the trace of a straight line ?
(*j*) What are oblique planes ?

SECTION–B

2. Draw the projections of a square lamina of 25 mm side, the plane of which is inclined at 30° to the H.P. and one diagonal is horizontal.

3. Draw the projection of a pentagonal pyramid base 25 mm edge and axis 45 mm long is resting on horizontal plane with one of its base edge inclined at angle of 30° the V.P.

4. A right pentagonal pyramid of base side 25 mm and height 50 mm rests on the HP with one edge of the base at 45° to the G.L. Draw the sectional elevation of the solid is cut by a plane parallel to the VP containing the apex.

5. Construct a plain scale of 2 cm to 1 km to read kilometres and hectometres. Show a distance of 5.8 km on this scale.

SECTION–C

Marks : 8 Each

6. A right circular cone (base dia. = 55 mm and height = 70 mm) rests on its base on the H.P. A square prism of 40 mm edge penetrates the cone in such a way that their exes are collinear. Draw the plan and elevation of the solids and show the curve of their intersection.

7. Draw the development of a sphere of 50 mm diameter by the zone method.

8. A cube of 30 mm sides rests on the top of a cylindrical slab of 60 mm diameter and 25 mm thick. The axes of the solids are in same straight line. Draw an isometric projection of the solid.

9. Draw the free hand front view and top view of pipe joint for diameter 50 mm. Give the mean dimensions also.

MODEL TEST PAPER – 9
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 60*

Note : *Section A is compulsory. Attempt any Five questions from Sections B and C, selecting at least two questions from each section.*

SECTION–A

Marks : 2 Each

1. (*a*) Why the projections of an object are not drawn in 2nd and 4th quadrants?

(*b*) Name the different styles of lettering.

(*c*) Name the various dimensioning techniques.

(*d*) Draw a symbol of third angle projections.

(*e*) What is a plane lamina?

(*f*) What is the trace of a straight line?

(*g*) What is difference between cylinder and a cone?

(*h*) How many numbers of equal faces are in octahedron?

(*i*) Define refraction fraction (R.F.).

(*j*) Draw the dimension line.

SECTION–B

Marks : 8 Each

2. Write in double stroke vertical and inclined style, the following statement using ratio 7:4

GOLDEN TEMPLE

3. A square prism, base of 40 mm side, axis 70 mm long, is resting on its base on HP. One side of the base is inclined at 60° to VP. Draw its projections?

4. A point P is 30 mm above the HP and 40 mm in front of VP. Draw its projections.

5. A pentagon pyramid of 30 mm base edges and axis 70 mm long, resting on its base on the HP having a side of base perpendicular to VP. It is cut by a section plane parallel to VP and 10 mm away from the axis. Draw its sectional plane and elevation.

SECTION–C

Marks : 8 Each

6. Construct a scale having R.F. = 1 : 400 to show meters and long enough to measure up to 60 meters. Measure a distance of 44 meters on the scale.

7. A vertical square prism of 60 mm base and axis length of 110 mm is resting on one of its square base on ground and having its two rectangular faces equally inclined to VP. A horizontal square hole of side 40 mm is drilled through it such that the axes of both the prism and the hole bisect each other at right angle. The faces of the hole are equally inclined to HP. Draw the projection of the combination and show the lines of intersection.
8. Incomplete the orthographic projection of an object as shown in Figure. Draw the missing lines in these views.

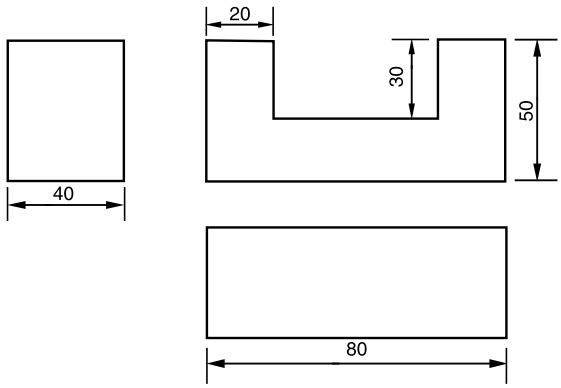


Fig. 1.

9. A pentagon prism of side 50 mm and 130 mm height is resting on its base with one of the vertical faces which is away from the observer parallel to VP. A vertical bore of 74 mm diameter is cut through its face so that the axis of the hole is bisecting the axis of the prism and is parallel to HP and VP. Draw the development of the lateral surface of the prism.

MODEL TEST PAPER – 10
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours *Maximum Marks : 60*

Note : *1. Question No. 1 is Compulsory.*

2. Attempt any five questions from parts A & B selecting atleast two from each part.

Q.1. (*a*) Differentiate between 1st angle and 3rd angle method of projection (2 each).

(*b*) Write the following in single stroke freehand Gothic lettering.

(*c*) Show the Dimension line, extension line, and arrow head with the help of a suitable sketch.

(*d*) Draw the isometric scale.

(*e*) Why the projections of an object are not drawn in second and fourth quadrants?

(*f*) What do you understand of an auxiliary vertical plane (AVP) and an auxiliary inclined plane (AIP)?

(*g*) What are the various methods of finding the true length of a straight line?

(*h*) Draw free hand the trace of a line when it is parallel to HP and inclined to V.P.

(*i*) What is meant by polyhedra and what are their types?

(*j*) How do we differentiate between Apparent Section and True Section.

PART–A

Q.2. A straight line AB, 70 mm long has its A in both HP & VP. The line is inclined to HP at 45o and to VP at 30o. Draw its projections.

Q.3. A regular pentagonal lamina of 25 mm side has one side in the H.P, its plane is inclined at an angle of 30o to HP and perpendicular to VP. Draw its projections.

Q.4. A hexagonal pyramid, side of base 25 mm and axis 50 mm long is resting on an edge of its base in HP with its axis inclined at 30o to HP and parallel to VP. Draw its projections.

Q.5. A pentagonal pyramid of base edge 25 mm and height 50 mm is resting on its base in HP in such a way that one of the base edge makes an angle of 30o with the V.P. It is cut by a sectional plane parallel to HP and passing at a distance of 25 mm from the base. Draw the front view and sectional top view.

PART–B

Q.6. A pentagonal prism of base edge 25 mm and 50 mm long stands on its base with one of the base edge inclined at 30o to VP. It is cut by a sectional plane V.T inclined at 45o to HP which passes through a point 30 mm from the base along the axis. Develop the lateral surface of the prism.

Q.7. A cylinder of 30 mm diameter and height 70 mm standing on its base in HP, is penetrated by a horizontal cylinder of 35 mm dia. and 80 mm long such that their axis bisect each other at right angles and are parallel to VP. Draw the curves of interpenetration in front view.

Q.8. A cylindrical slab of 70 mm dia. and 40 mm thick is surmounted by a cube of 35 mm edge. Draw its isometric view.

Q.9. The Fig. 1 shows the front view and top view of an object. Add the side view after redrawing the given views.

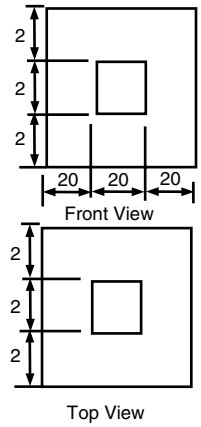


Fig. 1.

MODEL TEST PAPER – 11
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours

Note : *Attempt all the questions.*

Q.1. The artificial light on the drawing board is to be provided from.
(a) Top (b) Right (c) Left side of the draughtsman

Q.2. Which of the following pencil lead is hardest?
(a) H.B (b) H (c) B (d) F

Q.3. The length to height ratio of a closed filled arrow head is.
(a) 1 : 3 (b) 3 : 1 (c) 1 : 2 (d) 2 : 1

Q.4. The size of title block of all size of engineering drawing sheet.
(a) 210 × 297mm (b)185 × 65mm according to lSI

Q.5. Centre lines as drawn as? (a) Chain thin lines (b) Continuous thick lines

Q.6. The section lines are drawn at.
(a) 45° (b) 30° (c) 60° to the horizontal lines

Q.7. The size of letter means. (a) Height (b) Length (c) Thickness of the letter

Q.8. The lettering in which the direction of alphabets is at 75° is called.
(a) Italic (b) Gothic (c) Roman Lettering

Q.9. The line connecting a view to a note is called ..... .

Q.10. Two system of placing dimensions on a drawing are ..... and ..... systems.

Q.11. Length of the scale = RF × ..... .

Q.12. The unit of RF is.
(a) Cu cm (b) Sq.cm (c) Cm (d) None of these

Q.13. Drawing made to one half of the actual size is.
(a) 2 : 1 (b) 1 : 1 (c) 1 : 2

Q.14. Diagonal scales are used for measurement of.
(a) One Unit (b) Two Units (c) Three Units

Q.15. A Polygon is a plane figure having more than.
(a) Two (b) Three (c) Four Straight Lines

MODEL TEST PAPER – 12
ENGINEERING DRAWING

First Year B.E. Examination

Time : 3 hours

Note : *Attempt all the questions.*

Q.1. The focus of a point when it moves in a plane in such a way that its distance from a fixed line is always.

(a) Constant (b) Variable

Q.2. The path of a point moving in a space under given condition is called.....

Q.3. The eccentricity is always greater than one for.

(a) Ellipse (b) Parabola (c) Hyperbola

Q.4. The section obtained when the cutting plane is inclined to the axis but paralled to one of the generator of a cone is called.

(a) Ellipse (b) Parabola (c) Circle

Q.5. The ratio of the shortest distance from the focus to the shortest distance from the directrix is called.....

Q.6. The straight lines which intersect each other at the centre of the transverse axis are known as.....

Q.7. The curve generated by a point on the circumference of a circle that rolls along a fixed straight line is called.

(a) Cycloid (b) Epicycloid (c) Hypocycloid

Q.8. The curve generated by a point on the circumference of a rolling circle which rolls inside the directing circle is called.

(a) Cycloid (b) Epicycloid (c) Hypocycloid

Q.9. Angle subtended by arc in epicycloid, θ = ...$\times \dfrac{\text{Circumference of generating circle}}{\text{Circumference of directing circle}}$

Q.10. The curve traced out by an end of string when unwound from a circle is called.

(a) Evolute (b) Involute (c) Spiral

Q.11. The curve generated by a point moving continuously in one direction along a rotating line is called.....

Q.12. The locus centre of curvature is known as.....

MODEL TEST PAPER – 13
ENGINEERING DRAWING

First Year B.E. Examination

Time : 10 Minutes

Note : *Attempt all the questions.*

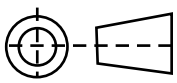
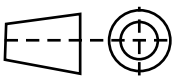
Q.1. The projection in which the length, breath and height of an object is shown in one view is.

(a) Pictorial (b) Orthographic projection

Q.2. In orthographic projection, the projectors are.

(a) Parallel (b) Perpendiculars (c) Inclined to the plane of projection.

Q.3. According to I.S.I symbol used for 1st angle projection is?

(a)  (b) 

Q.4. Draw the front view and side view of the object as shown in Fig.1.

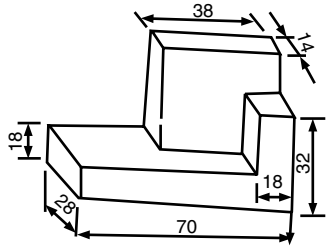


Fig. 1.

Q.5. Compare to actual diameter, isometric diameter of a sphere is.

(a) greater (b) smaller (c) equal

Q.6. A surface is represented by.....

Q.7. In a half sectional view the object is imagined to be cut off.

(a) One half (b) One fourth

Q.8. In the sectioned view, all hidden details lines are .....

Q.9. The ratio between the isometric and true length is.

(a) $2/\sqrt{3}$ (b) $\sqrt{2}/3$ (c) $\sqrt{2}/\sqrt{3}$

Q.10. In isometric projection, the receding lines are drawn with the horizontal at.

(a) 45° (b) 30° (c) 60°

Q.11. Projection on the auxiliary plane reveals the.

(a) True (b) Not true shape of the inclined surface.

Q.12. Freehand sketches are used for expressing and the recording.....