Total No. of printed pages = 8

RETEST EXAMINATION (OLD)
November/December 2025

Semester : 1st (Old)

Branch : All Branches

Subject Code : Me-101

Subject Name : ENGINEERING DRAWING

Full Marks – 100

Time – Four hours

The figures in the margin indicate full marks for the questions.

Instructions :

(i) Questions of PART-A are compulsory.

(ii) Answer any *five* from PART-B.

PART – A

1. Fill in the blanks with appropriate words : $1 \times 10 = 10$

(a) _____ are used to prepare drawings easily and accurately.

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(b) Uses of the T-square, Set-squares, Scale and the Protractor are combined in the _____.

(c) _____ are drawn to represent visible edges and surface boundaries of objects.

(d) R.F. of reducing scale is less than _____.

(e) The line formed by the intersection of principal planes is called _____ line.

(f) A _____ is the shortest distance between two points.

(g) The angle between the isometric axes is _____.

(h) Dash line is used to represent _____ parts.

(i) The included angle in a buttress thread is _____.

(j) The nut which can be easily operated by the thumb and a finger is called _____ nut.

2. State True or False : $1 \times 10 = 10$

(a) The scale is used to transfer the true or relative dimensions of an object to the drawing.

(b) Sketching or freehand is the first step to the preparation of a scale-drawing.

(c) Lettering is usually done in small letters.

(d) The diagonal scales are used when drawing is required in minute or small units.

(e) 50:1 represents enlarging scale.

(f) In the first-angle projection method, the object is kept in the first quadrant.

(g) The lines perpendicular to the isometric axes are called isometric lines.

(h) A screw thread is formed by cutting a helical groove on a cylindrical surface.

(i) Knuckle thread is a combination of the triangular and the square threads.

(j) In a butt joint, the plates are to be connected overlap each other.

3. Choose the correct answers : 1×5=5

(a) The T-square is used for drawing

(i) vertical lines (ii) curves

(iii) horizontal lines (iv) inclined lines

(b) The angle which we can't make using a single Set-square is _____.

(i) 45° (ii) 60°

(iii) 30° (iv) 75°

(c) Circles and arcs of circles are drawn by means of a ____.

(i) lengthening bar (ii) divider

(iii) compass (iv) protractor

(d) Which of the following scale is used when measurements are required in three units ?

(i) diagonal (ii) plain

(iii) scale of chords (iv) comparative

(e) Representative fraction is the _____.

(i) ratio of the length in drawing to the actual length

(ii) ratio of the actual length to the length in drawing

(iii) reciprocal of actual length

(iv) square of the length in drawing.

PART – B

4. (a) With the help of appropriate sketches, show the two systems of placing dimensions. 5

(b) What is R.F ? Draw a scale of 1: 50 to show metres and decimetres and long enough to measure upto 5 metres. 10

5. (a) Giving importance on the shape of letters, write the following line in single stroke vertical style. Consider the height of letter 20 mm.

"ENGINEERING DRAWING" 10

(b) Write 5 different types of lines. Give the description of each line with appropriate sketches. 5

6. (a) Construct a regular pentagon of side 30 mm. 8

(b) Inscribe a regular hexagon in a circle of 60 mm diameter. 7

7. (a) Draw the projections of the following points : 3×4=12

- A, in the H.P. and 20 mm behind the V.P.
- B, 40 mm above the H.P. and 25 mm in front of the V.P.
- C, in the V.P. and 40 mm above the H.P.
- D,25 mm below the H.P. and 25 mm behind the V.P.

(b) Draw any *one* of the following rivets with dimensions : 3

(i) Snap headed

(ii) Counter shank headed.

8. (a) A line PQ 75 mm long, has its end P in the V.P. and the end Q in the H.P. The line is inclined at 30° to the H.P. and at 60° to the V.P. Draw its projections. 8

(b) Draw any *one* of the following : 7

(i) Double-riveted (zigzag) lap joint

(ii) Single-riveted (single strap) butt joint.

9. (a) Draw the projection of a cone of base 40 mm diameter and axis 50 mm, resting on H.P. on its base. 8

(b) Draw the projection of a cylinder of base 40 mm diameter and axis 50 mm, resting on H.P. on its base. 7

10. (a) Draw the isometric view of a circle of 50 mm diameter when plane is horizontal. 7

(b) Draw neat and dimensional sketches of any one of the following using 25 mm pitch. 8

(i) Whitworth thread

(ii) Knuckle thread.

11. Draw the orthographic view of the object with 1st angle projection : 15

(a) Front view

(b) Side view

(c) Top view

(All dimensions are in mm)

