Total No. of printed pages = 6

END SEMESTER/RETEST EXAMINATION–2019

Semester : 1st

Subject Code : Me-101

ENGINEERING DRAWING

Full Marks – 100

Time – Four hours

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

Instructions :

1. *All* questions of PART–A are compulsory.
2. Answer any *five* questions from PART–B.

PART – A

1. Fill in the blanks with appropriate words : 1×10=10

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

   (b) When the measurements are required in three units _____ scales are used.

[Turn over

(c) The ratio of the length of the drawing of the object to the actual length of the object is called _____.

(d) Isometric scale is used in _____ projection.

(e) T-square is used for drawing _____ lines.

(f) Uses of T-square, set square, scale and protector are combined in the _____.

(g) A line of 4m is shown by 40 mm on a scale. Its representative fraction is _____.

(h) When two plates are joined by overlapping one another, the joint is called _____.

(i) All the angles of an equilateral triangle are _____.

(j) The diagonal of a quadrilateral is a line joining the _____.

2. Write the description and general application of the following lines : 2×5=10

(a) Centre Line

(b) Leader

(c) Section Line

(d) Projection line

(e) Cutting plane line.

3. Answer the following questions :

(a) Write two differences between 1st and 3rd angle projection. 2

(b) Write four names of drawing instruments. 2

(c) What is comparative scale ? 1

PART – B

Marks –75

Answer any *five* questions.

4. (a) What are two systems of placing dimensions on a drawing ? 5

(b) Draw a scale of 1:70 to show meters and decimeters and long enough to measure upto 7 meter. 5

(c) Construct a diagonal scale of RF=1/4000 to show meters, and long enough to measure upto 800 meters. 5

5. (a) Giving importance on the shape of letters, write the following in single stroke vertical style. Consider the height of letter 20 mm. 10

"I LOVE MY COUNTRY"

(b) Write the two systems planning dimensions on a drawing. 5

6. (a) Construct a regular hexagon of side 50 mm. 5

(b) Construct a rectangle of sides 70 mm and 50 mm long. 5

(c) Draw a line AB and AC making angle 75°. Draw a circle of radius 25 mm touching them. 5

7. Draw the projections of the following points on the same ground line, keeping the projections 25 mm apart. 2½×6=15

(a) In the H.P and 30 mm behind the V.P

(b) 35 mm above the H.P and 25 mm in front of the V.P

(c) In the V.P and 50 mm above H.P

(d) 20 mm below H.P and 20 mm behind the V.P

(e) 25 mm above the H.P and 15 mm behind the V.P.

8. Draw the following thread forms taking pitch 25 mm : 5×3=15

(a) Square thread

(b) Acme thread

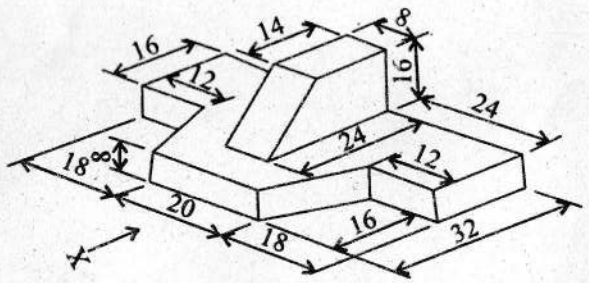
(c) Knuckle thread

9. Draw the orthographic view of an object with 1st angle projection. 15

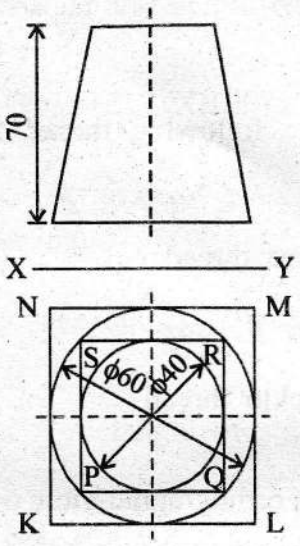
(a) Front view

(b) Top view

(c) Both side views



10. (a) Draw the isometric view of the frustum of the cone as shown in the figure : 6



(b) Draw the three view of a hexagonal nut for a 28 mm diameter bold, according to approximately standard dimensions. 9