Code : 100202

B.Tech 2nd Semester Exam., 2021

(New Course)

ENGINEERING GRAPHICS DESIGN

Time : 3 hours *Full Marks* : 70

Instructions :

(i) The marks are indicated in the right-hand margin.

*(ii) There are **NINE** questions in this paper.*

*(iii) Attempt **FIVE** questions in all.*

*(iv) Question No. **1** is compulsory.*

1. Choose the correct answer of the following (any *seven*) : 2×7=14

   (a) French curves are used for drawing

   (i) straight lines

   (ii) perpendicular lines

   (iii) spline curves

   (iv) None of the above

(b) Long-dashed dotted narrow lines are used to show

(i) centrelines

(ii) main drawings

(iii) hidden edges

(iv) None of the above

(c) Which one is the reducing scale?

(i) 1 : 1

(ii) 1 : 2

(iii) 2 : 1

(iv) None of the above

(d) When a line is inclined to both the planes, HP and VP, the true length of the line is seen in

(i) front view

(ii) top view

(iii) left-side view

(iv) None of the above

(e) The eccentricity of an ellipse is

(i) equal to 1

(ii) less than 1

(iii) greater than 1

(iv) None of the above

(f) Section plane can be

(i) perpendicular to HP

(ii) perpendicular to VP

(iii) inclined to both HP and VP

(iv) All of the above

(g) Isometric projection

(i) is larger than the object

(ii) is equal to the object

(iii) is smaller than the object

(iv) can be either larger or smaller

(Turn Over)

(h) The major functions to be performed by a computer-aided drafting system are

(i) basic set-up of a drawing

(ii) drawing the objects

(iii) changing the object properties

(iv) All of the above

(i) Which function toggles between ORTHO modes?

(i) F8

(ii) F2

(iii) F9

(iv) F3

(j) TTT command is used for drawing

(i) line

(ii) circle

(iii) arc

(iv) ellipse

(Continued)

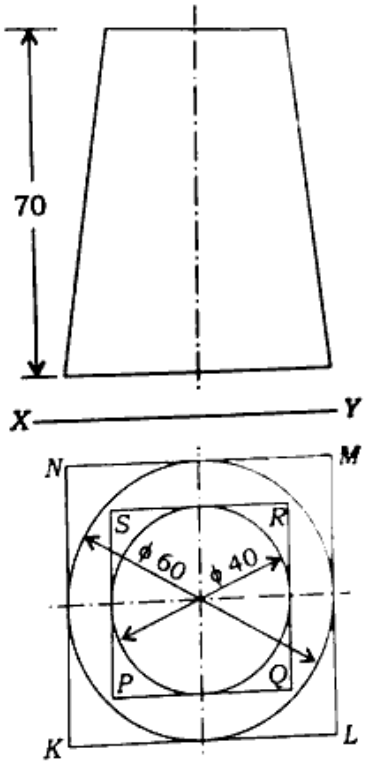
5. A line *AB* is in the first quadrant. Its ends *A* and *B* are 20 mm and 60 mm in front of the VP respectively. The distance between the end projectors is 75 mm. The line is inclined at 30° to the HP and its horizontal trace is 10 mm above *XY*. Draw the projections of *AB* and determine its true length. 14

6. Draw the projections of a pentagonal pyramid, base 30 mm edge and axis 50 mm long, having its base on the HP and an edge of the base parallel to the VP. 14

7. Draw the projections of a cone, base 50 mm diameter and axis 75 mm long, lying on a generator on the ground with the top view of the axis making an angle of 45° with the VP. 14

8. A square prism, base 40 mm side, axis 80 mm long, has its base on the HP and its faces equally inclined to the VP. It is cut by a plane, perpendicular to the VP, inclined at 60° to the HP and passing through a point on the axis, 55 mm above the HP. Draw its front view, sectional top view and another top view on an AIP parallel to the section plane. 14

9. Projection of the frustum of the cone is shown in figure below. Draw its isometric view. 14



★ ★ ★