BT–PS&E–I–11.18–1783 Reg. No. | | | | | | | | |

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B.Tech. Degree I Semester Examination in Polymer Science and Engineering November 2018

PE 1104 ENGINEERING GRAPHICS

Time : 3 Hours Maximum Marks : 50

(4 × 12½ = 50)

I. (a) Construct a plain scale of 1:5 to show decimeter and centimeter and read upto 1 meter. Show the length of 7.6 dm on it. (6)

(b) The major axis and minor axis of an ellipse is 100 mm and 70 mm respectively. Draw the ellipse. (6½)

OR

II. (a) Draw diagonal scale of RF=3/100, showing meters, decimeters and centimeters and can measure upto 5 m. Show the length of 3.69 m in it. (6)

(b) A ball thrown in air attains 100 m height and covered a horizontal distance of 150 m on ground. Draw the path of the ball. Name the curve. (6½)

III. A straight line AB of true length 100 mm has its end A 20 mm above HP and 30 mm infront of VP. The top view of line is 80 mm and front view is 70 mm. Draw the projection of the line and mark the traces. (12½)

OR

IV. A circular plate of diameter 80 mm is resting on a point of its periphery on HP such that it makes an angle of 40° to the HP. And the diameter passing through the point of its resting on HP makes an angle of 60° with VP. Draw the projections of the circular plate. (12½)

V. A square pyramid of base edge 35 mm and height 75 mm is resting on one of its base edges on HP. The axis of the pyramid is inclined 35° to HP and 40° to VP. Draw the projections of the solid and find the final front view and top view. (12½)

OR

VI. A sphere of diameter 40 mm rests centrally on the top of the frustum of a cone, diameter of base 50 mm, diameter of top 30 mm and height 60 mm. Draw an isometric view of the solids. (12½)

VII. A cone of base diameter 60 mm and height 65 mm is resting on HP on its base. A cutting plane inclined 30° to HP and passing through the centre of the axis of the cone cuts the solid. The bottom portion is retained. Draw the development of the bottom portion. (12½)

OR

VIII. Draw the perspective projection of a pentagonal prism of side 25 mm and length 50 mm, lying on one of its rectangular faces on the ground plane and one pentagonal face touching the picture plane. The station point is 75 mm to the left of the center of the prism. Station point is 30 mm above the ground plane. (12½)

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