(Pages: 2)

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## COMBINED FIRST AND SECOND SEMESTER B.TECH. (EXCEPTION OF THE PROPERTY OF THE P

EN 09 108 (B)—ENGINEERING GRAPHICS (B)

(2009 Scheme)

Time: Three Hours

Maximum: 70 Marks

## Part A

- I. (a) The following four points PQRS are situated in the four quadrants. Draw the orthographic projections of them about a single reference line, assuming that their projectors are spaced 30 mm. apart horizontally.
  - (i) P is 30 mm. above HP and 40 mm. in front of VP.
  - (ii) Q is 25 mm. above HP and 35 mm. behind VP.
  - (iii) R is 32 mm. below HP and 38 mm. behind VP.
  - (iv) S is 36 mm. below HP and 38 mm. in front of VP.

(14 marks)

Oi

(b) Explain about plane figures parallel to one of the reference planes with two examples.

(14 marks)

II. (a) A square headed bolt has 26 mm. diameter and the cylindrical portion has 60 mm. length. The square head has 42 mm. side and 22 mm. thickness. Draw the projections, if the bolt is resting upon its head on HP, keeping the rectangular faces equally inclined to VP and the axis vertical. Also add a plan view on an auxiliary plane inclined 30° to the axis.

(14 marks)

Or

(b) Write about the procedure for drawing a sectional view of solids with an example.

(14 marks)

III. (a) With necessary examples, explain about lines of intersection of cylinders.

(14 marks)

Or

(b) Write about the development of polyhedra.

(14 marks)

 $[3 \times 14 = 42 \text{ marks}]$ 

## Part B

## Answer any two questions.

IV. (a) A hexagonal pyramid of base edge 20 mm. and height 50 mm. is surmounted over square slab of 50 mm. side and 30 mm. thickness on HP so that one side of the square and one base edge of the pyramid are parallel to VP. Draw isometric view of the combination.

(14 marks)

(b) Brief about the classification of perspective views.

(14 marks)

(c) Explain the detail about the use of line types and dimensioning of views.

(14 marks)

 $[2 \times 14 = 28 \text{ marks}]$