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Reg. No. : .....

Name : .....

**Eighth Semester B.Tech. Degree Examination, April 2014  
(2008 Scheme)**

**08.802 : DESIGN AND DRAWING OF STEEL STRUCTURES (C)**

Time : 4 Hours

Max. Marks : 100

**Instructions :** Answer **all** questions from Part **A** and **two** questions from Part **B**. Assume **any** missing data suitably. **Use** of steel tables, IS 800-1984, IS 800-2007, IS 875 (Part 1, 2 and 3) IS 6533, IS 1161, IS 804, IS 806 are **permitted**.

PART – A

(2×10=20 Marks)

- I. Explain briefly the procedure for calculation of design wind pressure for Trivandrum city.
- II. Draw the cross section of a through type plate girder bridge and mark all the parts.

PART – B

(2×40=80 Marks)

- III. a) Design a rectangular water tank for a capacity of 100 m<sup>3</sup>. Staging design is NOT required. 20
- b) Draw to a suitable scale the elevation and plan of the above tank. 20

OR

- IV. a) Design a roof truss for a span of 15 m LL 2 kN/m<sup>2</sup> spacing of truss 3 m AC sheet location Trivandrum. 20
- b) Draw to a suitable scale elevation and support joint details of the above truss. 20

P.T.O.



- V. a) Design a chimney for a height of 80 m and top diameter of 4 m for the following condition :

<b>Height (m)</b>	0 – 30	30 – 60	60 – 80	
<b>Wind pressure (kN/m<sup>2</sup>)</b>	1	1.5	2	<b>20</b>

- b) Draw to a suitable scale elevation, plan and foundation details of the chimney. **20**

OR

- VI. a) Design a plate girder for BG track for 15 m span. **20**

- b) Draw to a suitable scale the elevation and plan of the above bridge. **20**
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