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BICEE-009

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

00476 **June, 2016**

BICEE-009 : ADVANCED STEEL DESIGN

Time : 3 hours *Maximum Marks : 70*

Note : *Answer **all** questions. Assume any missing data suitably. BIS codes are allowed. Use of scientific calculator is allowed.*

1. Describe in detail the design procedure of the following for a plate girder : *20*

(a) Riveted connection b/w flange angle to web

(b) Riveted connection b/w flange angle to cover plates

(c) Welded connection b/w flange and web

2. A tension member consists of an ISA 200 × 150 × 10 mm. Determine the safe axial load it can carry if *15*

(a) it is connected by sufficient number of 20 mm rivets at the end.

(b) it is connected by suitable weld at each end.

3. Discuss in detail about the analysis and design of towers. *15*

4. Design a self supporting steel chimney of height 40 m above foundation with diameter of cylindrical portion equal to 1·4 m. It has a 75 mm thick lining on the inside. *20*

OR

Design a rectangular pressed steel tank for a capacity of 1,50,000 litres and height of staging equal to 12 m. *20*
