

Civil Engineering Department
Guru Nanak Dev Engineering College, Ludhiana
3rd House Test

M.Tech 1st year

MTST-502 Bridge Engineering

Date: Tue 28 Apr 15

Time: 02:30 p.m. to 04:00 p.m.

Max. Marks 30

Don't write anything on question paper except your Roll No. _____

No IS code / IRC code / Handbook is allowed.

- 1 A bridge deck transfers total load of 120 kN/m to abutment. The reinforced concrete abutment is 500 m wide at top and 1000 mm at the bottom. Foundation level is 2m below bed level, where bearing capacity is 200 kN/sq m. Top of abutment is 3 m above bed level, HFL is 2 m above bed level. Take traction force of 22 kN/m at the top of abutment. Check stability of abutment. 10
 - 2 What are the recent developments in construction methods for concrete and steel bridges, and it is affecting the analysis and the design. 10
 - 3 Write short notes on inspection, maintainance, and rehabilitation of bridges. 10
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