Total No. of Questions : 8]   [Total No. of Printed Pages : 2

Roll No ....

MVSE-302(D)

M.E./M.Tech., III Semester

Examination, December 2016

Reliability Based Civil Engineering Design

(Elective-II)

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Assume suitable data if necessary.

1. Discuss the terms
   a) Mutually Exclusive Events
   b) Laws of probability
   c) Total Probability Theorem

2. Discuss the following terms
   a) Gamma and Beta distributions
   b) External distributions
   c) Moments and Expectations

3. Write about any two
   a) Load as stochastic process
   b) Dead load
   c) Maximum total load model

4. Discuss the static of properties of concrete and steel.

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5. Discuss
   a) The general expression for reliability
   b) The expression for probability of failure.

6. Describe the Monte-Carlo study of reliability.

7. What are the optimal safety factors? Discuss the calibration IS 800 and IS 456

8. Give an account of System Reliability.

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