

M.E. Second Semester (Civil Engineering (Construction Engg. & Managt.)) (CGS)  
**13076 : Elective-II - Construction Safety Management : 2 CM 05**

P. Pages : 2

Time : Three Hours



**AW - 3524**

Max. Marks : 80

- Notes :
1. All question carry equal marks.
  2. Answer **three** question from Section A and **three** question from Section B.
  3. Due credit will be given to neatness and adequate dimensions.
  4. Assume suitable data wherever necessary.
  5. Illustrate your answer necessary with the help of neat sketches.
  6. Use of pen Blue/Black ink/refill only for writing the answer book.

**SECTION - A**

1. a) Explain the influence of technological factors ensuring safety at construction site. 6  
b) What are the ill – effects of material deficiency and lack of maintenance on the service ability of structure. 7

**OR**

2. a) What should be the design strategy to ensure a crack – free water retaining reinforce concrete reservoir. 6  
b) What do you mean by hazards scenario? 7
3. a) What is the effect of corrosion and fatigue on deflected shape of structure during its service life. 6  
b) Explain why it is not always safe to use reinforce concrete as a tension member. 7

**OR**

4. a) Suggest measures to improve fire resistance of structural elements like beam & column. 6  
b) What is the user's duty in controlling unwanted deflection during the service life of structure. 7
5. a) How will you assess fire hazards? 7  
b) Write effect of fire on inflammable stock material at construction site. 7

**OR**

6. a) What are the basic principles for construction of fire resistance structure. 7  
b) Explain method of fire fighting. 7

**SECTION - B**

7. a) What is meant by energy device dissipation. State its usefulness in construction industry. 7
- b) Write most common type of example of accidental impact with suggestions for avoiding them. 7

**OR**

8. a) How wind load should be combined with other loads? Explain 7
- b) Write a short note on thunder - storm with special reference to Indian conditions. 7
9. a) What is the utility of providing temporary support during rehabilitation work. What should be the basic design consideration for design of temporary support. 6
- b) Write a note on safety during maintenance work. 7

**OR**

10. a) What are the management functions to be carried out immediately after major disaster at construction site. 6
- b) During any demolition work what care should be taken to protect the workers from the health hazard. 7
11. a) Explain building static reliability model for structural system. 6
- b) Define the term safety in what respect it is different from the term reliability. 7

**OR**

12. a) How the term Quality, safety and Reliability are related to each other. 6
- b) Explain design consideration to augment reliability. 7

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