

## ***B. Tech Degree V Semester Examination, November 2009***

### **SE 506 SAFETY IN CONSTRUCTION**

(2006 Scheme)

Time : 3 Hours

Maximum Marks : 100

#### **PART A**

(Answer all questions)

(8 x 5 =40)

- I. a. " Safety begins at the design stage of a construction project". Examine this statement.  
b. Briefly explain the role of human factors in construction safety management.  
c. What do you mean by a confined space? State the precaution to be taken before entry into a confined space.  
d. Briefly explain the safe operating procedure for using ladder.  
e. How will you ensure the safety in the use of construction equipment?  
f. Briefly explain the safety features of tower cranes.  
g. What do you mean by licensing of contractors? Explain.  
h. Mention the important provision in the Construction Works Act, 1996 regarding the health and welfare provisions.

#### **PART B**

(4 x 15 =60)

- II. a. What is a contract document? How can you ensure safety in the construction industry during the preparation of contract document? (8)  
b. Briefly discuss the role of contractors and engineers in ensuring safety in construction (7)
- OR**
- III. a. Briefly discuss the safety issues in construction. (7)  
b. What do you mean by ergonomics? How can you implement ergonomic principles in construction industry? Explain. (8)
- IV. a. What is scaffolding? What is the difference between the scaffolding used for ship building and scaffolding used for building construction. (8)  
b. Design a work permit system for confined space entry. (7)
- OR**
- V. Write notes on  
(i) Safety precaution in Demolition operation  
(ii) Boatswain chain  
(iii) Safety features of ladders  
(iv) Safety in shoring operations  
(v) Temporary structure. (5 x 3=15)
- VI. a. List the various defects in wire ropes. (5)  
b. How will you inspect lifts and hoists? (5)  
c. Briefly explain the safety features of EOT crane. (5)
- OR**
- VII. a. What are the important construction materials stored in construction sites? Briefly explain the safety precautions to be taken in storing and stacking them. (7)  
b. Prepare the check list to ensure the safety in the following  
(i) Pulley block (ii) Concrete mixer (8)
- VIII. Discuss the important provisions in the Construction Workers Act regarding  
(i) Training of building workers (ii) General safety (iii) Penalties (3 x 5 =15)
- OR**
- IX. Give an account of the important safeties, health and welfare provisions in the Contract Labour Act and Central Rules. (15)

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