

# ***B.Tech Degree V Semester (Supplementary) Examination*** ***June 2011***

## **SE 506 SAFETY IN CONSTRUCTION**

*(2006 Scheme)*

Time: 3 Hours

Maximum Marks: 100

### **PART – A**

(Answer **ALL** questions)

(8 x 5 = 40)

- I. (a) Is construction activity hazardous? Substantiate your answer with reasoning.
- (b) Suggest ergonomically safe manual lifting of weights.
- (c) What are the various components of pole type scaffold systems?
- (d) What are the safety measures to be taken while transporting explosives?
- (e) Suggest safe methods for storing timber at a construction site.
- (f) What are the safety measures to be considered while operating concrete mixer?
- (g) Write a sample contract document to ensure safety of public at a construction premises.
- (h) What was the need to establish BOCW act? To what type of organization this act is applicable?

### **PART – B**

(4 x 15 = 60)

- II. (a) Explain briefly about the human factors that are impediments to safety in construction. (8)
- (b) Discuss briefly about the construction activity and related ergonomic risk. (7)
- OR**
- III. (a) Discuss briefly about the present condition on safety with respect to the technological aspect at a construction site. (8)
- (b) Discuss briefly about the methods to reduce the ergonomic risks due to awkward work posture and due to the application at high force. (7)
- IV. (a) Discuss about the safety requirements while excavating soil. (8)
- (b) Explain about the safety measures to be taken while using ladders. (7)
- OR**
- V. (a) Discuss about the safety measures to be taken while demolishing a building. (8)
- (b) Discuss about the safety measures while carrying out works in confined space. (7)
- VI. (a) What are the general requirements in storing, stocking and handling of construction materials? What are the safety requirements while using pulley blocks? (8)
- (b) Discuss about the safety requirements while using hoist at a construction site. (7)
- OR**
- VII. (a) Discuss about the safety requirements while using vehicles at a construction site. (8)
- (b) What are the safety measures to be taken for wire ropes before its use? (7)
- VIII. (a) Write sample contract documents to ensure that contractor takes appropriate insurance policy for the work. (8)
- (b) Discuss about the role at BOCW welfare board in ensuring welfare to building workers. (7)
- OR**
- IX. (a) Discuss briefly about the welfare measures to be considered at construction site as per contract labour central rules. (8)
- (b) Discuss about the role of safety committee and safety officer as per BOCW act. (7)