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B. Tech. Degree III Semester Examination November 2014

SE 1305 SAFETY IN CONSTRUCTION (2012 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A (Answer *ALL* questions)

(8 x 5 = 40)

- I. (a) Write a sample contract condition to ensure safety of public at a construction site.
- (b) Suggest an ergonomic method to lift and carry weights manually.
- (c) Suggest the safety measures to be taken during storage, transport and handling of explosives.
- (d) What are different ways by which dismantled materials are removed from a building under demolition? Discuss about the safety measures to be taken while carrying out this operation.
- (e) Discuss about safety measures to be taken while storing and handling cement bags at a construction site.
- (f) Discuss about the safety measures to be taken while using pulley blocks at a construction site.
- (g) Discuss about the need for framing the Contract Labour (Regulation and abolition) Act and Rules.
- (h) Discuss about the different actions to be taken by the employer in the event of the occurrence of a reportable accident at a construction site.

PART B

(4 x 15 = 60)

- II. (a) Discuss about the various human factors that are impediments to construction safety management. (8)
- (b) Suggest methods to reduce important ergonomic risks at construction site. (7)
- OR**
- III. (a) Discuss about the role of different groups in construction industry in ensuring safety at site. (8)
- (b) Discuss briefly about the ergonomic risks associated with different construction activities. (7)
- IV. (a) Prepare an inspection check list for carrying out excavation near a railway track. (8)
- (b) Discuss the safety measures to be taken while using ladders at a construction site. (7)

OR

(P.T.O.)

- V. (a) With a sketch explain the different components of a double pole scaffold system. How do you make this scaffold rigid and stable? (8)
(b) Write a sample document for a confined space entry permit at a construction site. (7)
- VI. (a) Discuss the safety measures to be taken during the storage and handling of "aggregates" and "glass sheets" at a construction site. (8)
(b) Discuss different safety measures to be taken during the working of a concrete mixer machine. (7)
- OR**
- VII. (a) Prepare a sample checklist to ensure safe operation of vehicles in a construction site. (8)
(b) Discuss the safety measures to be taken while siting and during the operation of a mobile crane at a construction site. (7)
- VIII. (a) Discuss the applicability of "Contract Labour (R & A) Act" to construction establishment. What are the requirements to get registration and licence for a contractor under this Act? (8)
(b) Discuss briefly about the role of BOCW welfare board and the method of registration of an employer in this board. (7)
- OR**
- IX. (a) Who can become a beneficiary in BOCW welfare fund? What are the registration and other requirements to become a beneficiary? (8)
(b) Discuss briefly about the various welfare and health provisions to be made at construction site as per the Contract Labour (central) Rules. (7)
