

**B.Tech. CIVIL (CONSTRUCTION
MANAGEMENT)**

BTCLEVI

Term-End Examination

December, 2012

**ET-523(A) : CONSTRUCTION WORKS
SUPERVISION**

Time : 3 hours

Maximum Marks : 70

*Note : Question number 1 is **compulsory**. Attempt four more questions from question number 2 to 7. Use of calculator is permitted.*

1. Describe in brief : 7x2=14
- (a) Ready-Mix Concrete (RMC)
 - (b) Different types of bond
 - (c) Compare English bond with the Flemish bond as used in brick masonry.
 - (d) Water cement ratio and its effect on strength of concrete.
 - (e) Determination of compressive strength of concrete.
 - (f) What is Rate Analysis ?
 - (g) What is a cement register ?

2. (a) Explain the various types of drawings used at a construction site. 7+7
- (b) Briefly explain the various co-ordination activities involved at a project site for a supervisor to interact with
- (i) owner/client
 - (ii) architect
 - (iii) consultant, and
 - (iv) local authorities.
3. (a) What do you understand by “the estimate of a project” ? How does an estimate help to monitor the financial aspects of the project ? 7+7
- (b) What are the checks to be observed during supervision of structural steel fabrication ?
4. (a) Being a supervisor from the owner side, develop a format for steel issue register for issuing steel bars on chargeable basis to various contractors working on the project site. Note that TOR Steel and TMT bars are being used in the project with different rate of supply. 7+7
- (b) Give a brief description of the following :
- (i) Pre-stressed concrete, and its advantages.
 - (ii) grade of concrete and type of steel required for pre-stressed members.

5. (a) What is contract agreement ? What are the important documents of contract ? 7+7
- (b) Who is the "first line manager" in a construction project ? Enumerate his duties and responsibilities.
6. (a) List out the important documents to be demanded by the construction supervisors. How is supervision for the owner different from the supervision for the construction agency ? 7+7
- (b) What is the importance of a job layout ? Sketch a typical job layout for an R.C.C framed building construction.
7. (a) How do you construct various construction schedules ? Show how they facilitate the work of construction planning. 7+7
- (b) What is the significance of preparatory work prior to the execution of construction project ?
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