

B.E. (Civil) 8th SEMESTER FINAL EXAMINATIONS, 2012-13
Construction Technology (CE 801)

Full Marks: 70

Time: 3 hrs

Use separate Answer-script for each half.
TWO (2) marks are reserved for neatness in second half.

FIRST HALF

Answer Q. 4 and any two from the rest

1. a) What are the steps required for preparation of steel for fabrication?
b) Discuss about some Destructive and Non-destructive test of welded joints. (4+6=10)

2. a) What are the important parameters for proper quality assurance of new R.C.C. constructions?
b) How quality control can be done on existing concrete structures by Non-Destructive method of testing? (5+5=10)

3. a) What are the advantages of high-rise buildings?
b) Discuss with necessary sketches about the structural configuration and foundation features of any tallest building in the world /India/Kolkata. (3+7=10)

4. Write short notes on (**any three**):
 - a) Steps for repairs of buildings components (e.g. column, beam and slab)
 - b) Light gauge steel sections for building construction
 - c) Innovative materials for construction technology
 - d) Major types of bridges with line sketches
 - e) Rehabilitation of masonry bridges
 - f) Bearings for bridges(3x5 = 15)

SECOND HALF

Answer any three questions.

5. (a) Explain the different aspects and types of fire hazards.
(b) Classify various classes of fire loads. How the fire load is calculated?
(c) What are the general fire safety requirements for buildings?
(d) List the usual equipments required for fire extinction. (2+3+4+2=11)

6. (a) What are the functional requirements of ventilation system?
(b) Briefly explain the various artificial ventilation systems.
(c) Differentiate between comfort air conditioning and industrial air conditioning.
(d) What are the essentials of an air conditioning system? (3+3+2+3=11)

7. (a) Discuss in brief various types of thermal insulating materials.
(b) What general methods of thermal insulation can be achieved in a building?
(c) What do you understand by shoring? Show with sketches the various types of underpinning. List the different types of scaffolding.

(2+2+7=11)

8. (a) List different damp proofing methods. What are the materials commonly used for damp proofing?
(b) What are the different defects that may occur in painting works?
(c) What are the defects that may arise in plaster work?

(5+3+3=11)

9. (a) What does mechanization truly mean?
(b) List the documents required for actual project implementation.
(c) What is the difference between a record and a document?
(d) List the records/documents the owners must have at the time of handover on completion of the project work.

(2+3+2+4=11)
