

Diploma in Civil Engineering

Term-End Examination

June, 2011

**BCE-062 : CONSTRUCTION SUPERVISION
AND BUILDING MAINTENANCE**

Time : 2 hours

Maximum Marks : 70

Note : Question number 1 is compulsory. Answer any four questions out of the remaining questions.

1. Select the most appropriate answer from the given alternatives in the following multiple choice questions : **2x7=14**
- (a) Tender is :
- (i) a view of a structure, as seen from the top
 - (ii) a document accompanying drawings and estimates
 - (iii) an offer or bid submitted by an intending contractor
 - (iv) an agreement between a client and a contractor.
- (b) Service drawings provide necessary information as regards to :
- (i) Fabrication of steel work for the construction of trusses.

- (ii) scaling of missing dimensions in GA drawings
 - (iii) plumbing for water supply etc.
 - (iv) bar bending procedures.
- (c) As per BIS specifications, the size of an "A₂" drawing sheet is :
- (i) 420 mm × 594 mm
 - (ii) 297 mm × 420 mm
 - (iii) 841 mm × 1189 mm
 - (iv) 594 mm × 841 mm
- (d) When a revision of an existing drawing arrives at site, it is a good practice to stamp the earlier drawing as :
- (i) cancelled
 - (ii) not to be seen again
 - (iii) superseded
 - (iv) wrong drawing
- (e) Which of the following comes first ?
- (i) Submission of bills
 - (ii) Submission of quotations
 - (iii) Issue of a purchase order
 - (iv) Selection of the best offer for the purchase of an article.
- (f) Which of the following is a defect due to improper seasoning of timber ?
- (i) Twisted fibres (ii) Upsets
 - (iii) Cup (iv) Knots

- (g) Choose the correct statement.
- (i) Taking predetermined quantities of concrete ingredients is called curing of concrete.
 - (ii) Non - destructive tests should not be used for concrete.
 - (iii) Joints in subsequent courses in brick work should not be staggered.
 - (iv) Concrete should not be over - compacted as it may lead to segregation.

2. (a) Describe various phases of a construction project briefly. 7
- (b) What precautions should be taken to reduce accidents at a construction site ? 7
3. (a) What do you understand by 'Muster rolls' ? 7
What are the advantages of using them ?
- (b) Briefly discuss various checks to be carried out at different stages of a concreting work. 7
4. (a) What are various types of preservatives used for timber ? Enlist them and briefly describe the procedure of application for any one of them. 7
- (b) Why plumbing lines corrode with time ? 7
Suggest some remedies.

5. (a) What do you understand by honey combing in concrete ? What may be the reasons for its formation ? 7
- (b) Explain defects in timber due to fungi. 7
6. (a) Draw neat sketches of different types of shakes in timber. 7
- (b) What do you understand by self siphonage in a flushing cistern ? How can it be set right ? 7
7. (a) Briefly explain a procedure for removal of clogging in vertical stacks. 7
- (b) Explain treatment of a crack in a structure by pressure grouting. 7
8. Write short notes on *any two* of the following : **2x7=14**
- (a) Strengthening of brick masonry
- (b) Remedial measures for dampness in old structures.
- (c) Manufacturing defects in sanitary fittings.
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