

**DIPLOMA IN CIVIL ENGINEERING
DCLE(G)**

**Term-End Examination
December, 2015**

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

Time : 2 hours

Maximum Marks : 70

Note : *Question no. 1 is compulsory. Answer any four questions from the remaining questions. All questions carry equal marks.*

1. Select the most appropriate answer from the given alternatives in questions (a) to (g) :

7×2=14

- (a) Information about plumbing for water supply is given in
- (i) Architectural drawings
 - (ii) Structural drawings
 - (iii) Service drawings
 - (iv) All of the above
- (b) 841 mm × 1189 mm is the size of drawing sheet named as
- (i) A3
 - (ii) A2
 - (iii) A1
 - (iv) A0

- (c) Out of the following materials, which one is to be soaked in water before use ?
- (i) Cement
 - (ii) Steel
 - (iii) Timber
 - (iv) Brick
- (d) What may be the effect(s) of insufficient drainage of water at a construction site ?
- (i) Water seepage into foundation
 - (ii) Settlement of ground
 - (iii) Unhygienic conditions
 - (iv) All of the above
- (e) Defects in timber may be due to
- (i) Conversion
 - (ii) Fungi
 - (iii) Insects
 - (iv) All of the above
- (f) 'Knot' is the name of a defect in
- (i) Bathroom fittings
 - (ii) Steel
 - (iii) Timber
 - (iv) Brick

- (g) 'Blister' is a defect observed in
- (i) Cement
 - (ii) Timber
 - (iii) Brick
 - (iv) Sanitary fittings
2. (a) What do you understand by 'Indirect Costs' in a project ? Discuss briefly, giving some examples. 7
- (b) Enlist the names of any four tests carried out on construction materials. Briefly explain any one of these tests. 7
3. (a) What is the significance of "POL Consumption Accounting" ? Explain briefly. 7
- (b) What precautions should be taken while excavating ground for making deep trenches ? 7
4. (a) Explain some points or aspects to be kept in mind while supervising reinforced concrete work at a site. 7
- (b) Discuss the few conditions which may lead timber to decay. 7
5. (a) Draw a neat sketch of a section of a Bib tap showing its internal parts. 7
- (b) On what principle does a flushing cistern work ? What steps would you take to get rid of "self siphonage" in a flushing cistern ? 7

6. (a) Discuss why cast iron soil pipes are used for drainage of sanitary installations. 7
- (b) What are some common maintenance problems in plumbing of buildings ? Explain briefly. 7
7. Write short notes on any *two* of the following : $2 \times 7 = 14$
- (a) Cracks in Buildings
- (b) Repair Materials
- (c) Strengthening of Brick Masonry Structures
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