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BOARD DIPLOMA EXAMINATION, (C–14)
MARCH/APRIL—2017
DCE—SIXTH SEMESTER EXAMINATION

CONSTRUCTION FAILURES, REPAIRS AND MAINTENANCE

Time : 3 hours] [*Total Marks* : 80

PART—A 3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define the following : 1½+1½=3

(a) Construction defect

(b) Construction failure

2. Mention any six different modes of failures of foundations. 3

3. State the common construction failures in tunnels. 3

4. State any three causes of retaining wall failure. 3

5. Define spalling of concrete. 3

6. State the defects in masonry cladding. 3

7. Mention any three causes of natural disaster. 3

8. State the effects on building due to storm at sea. 3

9. Mention any six defects in buildings. 3

10. Define the following :   1½+1½=3

 (a) Guniting

 (b) Cementation

PART—B   10×5=50

Instructions : (1) Answer *any* **five** questions.

 (2) Each question carries **ten** marks.

 (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain about failures and remedies involved in pile foundations.   10

12. Explain about failures and control measures involved in stone pitching in surface construction.   10

13. Explain about wall failures in masonry and mention the repairs involved for rectifying the failures.   10

14. *(a)* Explain about the effect of shrinkage in concrete.   5

 (b) Explain about the concrete failure due to compression.   5

15. Explain the causes of collapse failures in structures and mention the control measures for rectifying the failures.   10

16. *(a)* Explain about failures due to ignorance and negligence.   5

 (b) Explain about the supervision in designing and construction.   5

17. *(a)* Explain about maintenance problems in sewer system.   5

 (b) Explain about maintenance problems in electrical installation.   5

18. Explain methods of repairs to canal linings.   10

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