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**7621**

**BOARD DIPLOMA EXAMINATION, (C-20)**

**MAY/JUNE—2023**

**DCE - FIFTH SEMESTER EXAMINATION**

**CONSTRUCTION FAILURES, REPAIRS AND MAINTENANCE**

*Time : 3 Hours ]*

*[ Total Marks : 80*

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**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. State any three causes of structural failure.
2. State any three causes of failure of sewers.
3. State the three different modes of failure of foundation.
4. Explain geo-membranes.
5. State the effect of aging in masonry.
6. Write short notes on spalling of concrete.
7. Write about wind damages.
8. Write short notes on over load in construction.
9. Write three causes of natural disaster.
10. Write three causes of dampness.

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- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **eight** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

**11.** (a) Explain about failure and remedies involved in pile foundation.

**(OR)**

(b) Explain the sub surface construction failures in trenches.

**12.** (a) What are the causes of failures in retaining wall structures and their preventive measures?

**(OR)**

(b) What is slope failure? Explain the types of slope failures.

**13.** (a) Explain the types of failures in masonry.

**(OR)**

(b) Explain the effect of shrinkage in concrete.

**14.** (a) Describe the failure in construction due to ignorance and negligence.

**(OR)**

(b) Explain hazards due to demolition and deterioration.

**15.** (a) What are the repairs for leaking RCC roof using chemicals?

**(OR)**

(b) Explain the methods of repairs to canal lining.

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**PART—C**

10×1=10

- Instructions :** \*
- (1) Answer the following question.
  - (2) The question carries **ten** marks.
  - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

**16.** Explain the causes of collapse failures in structures and mention the control measures for rectifying the failures.

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