

**7621****BOARD DIPLOMA EXAMINATION, (C-20)****DECEMBER—2022****DCE - FIFTH 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 error and failure.
2. What is meant by undermining?
3. Write the earthquake effect on foundation.
4. What are the causes of slope failures?
5. State the reasons for masonry wall failures.
6. What is water tightness?
7. State the man-made failures in construction.
8. Write a short note on rain ponding effect.
9. List out any six effects of dampness in buildings.
10. Write a short note on methods of maintenance of roads.

**PART—B**

8×5=40

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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 foundation failures with neat sketches.

**(OR)**

(b) Explain about sheeting and bracing.

**12.** (a) Describe the subsidence of retaining wall and abutments.

**(OR)**

(b) What are the types of slope failures? Explain with neat sketches.

**13.** (a) Explain the types of cracks and factors affecting cracking.

**(OR)**

(b) Describe the types of failures in masonry of buildings.

**14.** (a) Distinguish between man-made failures and natural failures.

**(OR)**

(b) Explain about demolition and deterioration.

**15.** (a) Explain the methods of solving dampness problems in buildings.

**(OR)**

(b) Explain the repairs for leaking reinforced cement concrete roofs using chemicals.

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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 repairs involved for rectifying failure due to ignorance, negligence and incompetence.

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