C09–C–**306**

3222

BOARD DIPLOMA EXAMINATION, (C–09)
MARCH/APRIL—2018
DCE—THIRD SEMESTER EXAMINATION

CONSTRUCTION MATERIALS

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

PART—A　　　　　　　3×10=30

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

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

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

1. State any three characteristics of good building stone.

2. State any three characteristics of good tiles.

3. State any four characteristics of good sand.

4. What is meant by hydration of cement?

5. State the ingredients of concrete and give their functions.

6. Define 'mortar'. How are mortars classified?

7. State any three types of varnishes.

8. State three uses of Enamel.

9. What is geosynthetics? Mention the types of geosynthetics?

10. State any three characteristics of good timber.

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PART—B   10×5=50

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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. List any six properties and four uses of granite stone.

12. Explain briefly the characteristics of a good brick.

13. What are 'fly ash bricks'? State any five advantages of using fly ash bricks.

14. Briefly explain about the following tests :

(a) Normal consistency of cement

(b) Initial setting time of cement

(c) Final setting time of cement

15. Write the usual proportion of cement concrete for the following works :

(a) RCC for footings

(b) Mass concrete foundation

(c) RCC for column

(d) Beam and columns

16. State five uses of each of the following :

(a) Accelerators

(b) Superplasticizers

17. *(a)* State and explain the ingredients of a paint.

(b) Write the uses of paint.

18. Explain briefly about the uses of the following wood products :

(a) Plywood

(b) Particle board

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