INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)

B.Tech III Semester End Examinations (Regular), February – 2021
Regulation: IARE–R18
BUILDING MATERIALS, CONSTRUCTION AND PLANNING

Time: 3 Hours   **(CE)**   **Max Marks: 70**

Answer any Four Questions from Part A
Answer any Five Questions from Part B

PART – A

1. Explain the characteristics of good building stones. and its importance in construction. **[5M]**

2. Write a short notes on workability and various factors affecting it. **[5M]**

3. Discuss about objectives of good foundation with neat sketch. **[5M]**

4. Enumerate the various defects in timber. **[5M]**

5. Explain the various building bye laws in detail. **[5M]**

6. Describe the manufacturing of bricks by any one method. **[5M]**

7. What is the role of admixtures in concrete and list some admixtures. **[5M]**

8. Explain the geometrical design of a open well staircase. **[5M]**

PART – B

9. Explain the importance and procedure of sieve analysis of fine aggregate. **[10M]**

10. Describe conditions that decide maximum size of coarse aggregate to be used in concrete. **[10M]**

11. Describe the test procedure for conducting initial and final setting time of cement. **[10M]**

12. Explain in detail compaction factor test for finding the workability of a concrete with neat sketch.

[10M]

13. With neat sketches, explain concrete and mosaic floors with its merits. **[10M]**

14. List various types of tress and explain methods of seasoning of timber. **[10M]**

15. With neat sketch explain English bond with its merits. **[10M]**

16. List various types of masonary used in construction and explain ashlar masonary with merits. **[10M]**

17. Describe with a neat sketch the various components of a simple staircase. **[10M]**

18. List the various types of staircase. Write the merits and demerits for any two types of staircase.

[10M]

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