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Question Paper Code: ACEB02



INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

Four Year B.Tech III Semester End Examinations(Regular) - November, 2019

Regulation: IARE – R18

BUILDING MATERIALS, CONSTRUCTION AND PLANNING

Time: 3 Hours

(CE)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

- Explain any three methods of quarrying of stones. [7M]
 - Summarize the manufacturing process of brick. [7M]
- Write the classification of bricks with properties. [7M]
 - List the different tests on coarse aggregates and explain abrasion and impact tests. [7M]

UNIT – II

- Enumerate the various types of cement and explain any four. [7M]
 - List any four admixtures and explain in brief. [7M]
- What are Bouge's compounds? Explain in detail how each one of these compounds influences the strength and setting properties of cement. [7M]
 - Write short notes on
 - Soundness test of cement
 - Compressive strength test of cement

UNIT – III

- What are the components of an arch? Explain any five types of arches. [7M]
 - Enumerate different types of floors and explain any three. [7M]
- What is the necessity of foundation for a structure? Write about raft footing. [7M]
 - Compare strap footing and strip footing with neat sketches. [7M]

UNIT – IV

- Illustrate English bond and Flemish bond with neat sketches. [7M]
 - What are the properties required to use aluminium as building material? [7M]
- Compare the merits and demerits of stone masonry and brick masonry? [7M]

(b) Explain in detail the causes of decay of timber and types of defects?

[7M]

UNIT – V

9. (a) What are the types of stair cases? Explain in brief.

[7M]

(b) Explain the following:

i) Aspect

ii) Prospect

iii) Sanitation

[7M]

10. (a) Elaborate the following:

i) Tread

ii) Riser

iii) Step

iv) Nosing

[7M]

(b) How do you achieve roominess and aspect in a building? Explain with examples.

[7M]