



CENTRAL INSTITUTE OF TECHNOLOGY KOKRAJHAR
(Deemed to be university under Ministry of HRD, Govt. of India)
KOKRAJHAR :: BTAD :: ASSAM :: 783370

Department of Civil Engineering
END – SEMESTER EXAMINATION
Module: B.Tech

Session: Aug – Dec, 2022 Semester: 3rd Time: 3h Full Marks: 100

Course Code: UCE304 Course Title: Building Materials & Construction

Note: Attempt ANY Five, Code Allowed: IS 456-2000 and IS 10262-2009

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1. a) Explain different bonds of the Brick Masonry, and draw diagrams of the same. 10
b) Write about the classification bricks and characteristics of good bricks. 10
 2. a) Find the requisite mix proportions of the concrete using the following data 10
 - (i) Characteristic compressive strength of concrete required at end of 28 days = M 25
 - (ii) Nominal maximum size of aggregate used = 20 mm, Angular
 - (iii) Required workability at site = 125 mm (slump Value)
 - (iv) Type of exposure Condition of concrete (as defined in IS: 456) = Severe
 - (v) Method of placing Concrete on Site = pumpable concrete
 - (vi) Specific gravity of cement = 3.15
 - (vii) Specific gravity of FA = 2.64
 - (viii) Specific gravity of CA = 2.84
 - (ix) Aggregates are assumed to be having surface dry conditions.
 - (x) Fine aggregates are confirmed to Zone III of IS – 383
 - b) Write about different types of walls and their uses in the construction. 10
 3. a) Discuss classification of buildings as per National Building Code (NBC) 10
b) What are the different types of loads on structures and buildings according to the IS Codes. 10
 4. a) What is workability and mention factors affecting the workability. 10
b) What is durability and mention the factors affecting the durability. 10
 5. List the classification of Timber according to IS 399 and also mention the characteristics of a good timber. 20
 6. Write shorts notes: 20
 - a) Water Proofing Materials b) Pointing c) Damp Proofing d) Types of Cement

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