



আন্তর্জাতিক ইসলামী বিশ্ববিদ্যালয় চট্টগ্রাম
 الجامعة الإسلامية العالمية شيتاغونغ
International Islamic University Chittagong
Department of Civil of Engineering (CE), FSE

FINAL EXAMINATION SPRING - 2022

Programme	: Civil Engineering	Level of Study	: UG 1
Time	: 10.30 AM	Date	: 23 rd May, 2022
Duration	: 3 hours	Total Marks	: 50
Course Code	: CE 1206	Section(s)	: 1
Course Title	: Concrete Sessional		

QUESTION 1 (10 Marks)

- a) Describe the factors affecting the normal consistency of cement. (05)
- b) What is the significance of setting time? (05)

QUESTION 2 (10 Marks)

- a) Why We Measure the Soundness of Cement? (05)
- b) What is the practical use of controlling the grading of concrete aggregate? (05)

QUESTION 3 (10 Marks)

- a) Calculate fineness modulus for the fine aggregate using the given data: (10)

Sieve Number	Sieve Opening (mm)	Materials Retained (gm)
#4	4.75	80.5
#8	2.36	125.8
#16	1.18	110.6
#30	0.60	76.9
#50	0.30	58.2
#100	0.15	45.8
Pan		2.2

QUESTION 4 (10 Marks)

- a) Explain the significance of specific gravity of aggregate. (05)
- b) What difficulties arise in the use of aggregates which absorb water? (05)

QUESTION 5 (10 Marks)

- a) What will happen if a brick absorb more water? (05)
- b) Discuss the effect of rate of loading upon the compressive strength. (05)