

Enrollment No: _____

Exam Seat No: _____

C. U. SHAH UNIVERSITY

Summer Examination-2020

Subject Name: Concrete Technology

Subject Code: 4TE03CNT1

Branch: B.Tech (Civil)

Semester : 3

Date : 07/03/2020

Time : 02:30 To 05:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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- Q-1 Attempt the following questions: (14)**
- a) What is heat of hydration in cement? (1)
 - b) How we removed air void in concrete? (1)
 - c) Give the name of following Instrument. (1)



- d) Give the name of following Instrument. (1)



- e) Give the name of following Instrument. (1)





f) Give the name of following Instrument. (1)



g) Give the name of following Instrument. (1)



h) Give the name of following Instrument. (1)





i) Give the name of following Instrument. (1)



- j) Define workability. (1)
- k) In which situation GGBFS give better results? (1)
- l) What is alkali aggregate reaction? (1)
- m) What is freezing and thawing process in concrete? (1)
- n) Enlist various method of concrete mixdesign. (1)

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

- (A) Enlist various types of manufacturing of cement. Explain any one in detail. (7)
- (B) Enlist various types of cements. Explain any three in detail. (7)

Q-3 Attempt all questions (14)

- (A) Explain the importance of cement in present scenario. (7)
- (B) Explain slump cone test for fresh concrete. (7)

Q-4 Attempt all questions (14)

- (A) Enlist various types of N.D.T test. Explain any two in detail. (7)



- (B) Explain aggregate impact value test in detail. (7)
- Q-5 Attempt all questions (14)**
- (A) Write short Note on (7)
- 1) Acid Attack
- 2) Sulfate attack
- (B) Explain various causes of cracks in concrete. (7)
- Q-6 Attempt all questions (14)**
- (A) What is mineral admixture? How it is helpful in concrete? Also write importance of Admixtures. (7)
- (B) Write difference between high strength concrete and high performance concrete. (7)
- Q-7 Attempt all questions (14)**
- (A) Write short note on (7)
- 1) Self compacting concrete.
- 2) Fiber reinforced concrete.
- (B) What is gel space ratio ? explain in detail. (7)
- Q-8 Attempt all questions (14)**
- (A) How to check tensile strength of concrete? Explain in detail. (7)
- (B) Write difference between ACI method and Indian Standard method in concrete mix design. (7)

