



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

III B.Tech I Sem Supply End Examination, July 2022

Concrete Technology

(CIVIL)

Time: 3 Hours.**Max. Marks: 70**

Note: 1. Question paper consists: Part-A and Part-B.

2. In Part – A, answer all questions which carries 20 marks.

3. In Part – B, answer any one question from each unit.

Each question carries 10 marks and may have a, b as sub questions.

PART- A**(10*2 Marks = 20 Marks)**

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|-------|---|----|-----|-----|
| 1. a) | Write any two admixtures to improve workability | 2M | C01 | BL1 |
| b) | What is the significance of grade of cement | 2M | C01 | BL1 |
| c) | Differentiate fine aggregate with coarse aggregate | 2M | C02 | BL2 |
| d) | Write any two properties of recycled aggregate | 2M | C02 | BL1 |
| e) | Explain the reason of segregation in concrete | 2M | C03 | BL4 |
| f) | What is the test to measure flow ability of fresh concrete | 2M | C03 | BL1 |
| g) | Write the purpose of 'NDT' | 2M | C04 | BL1 |
| h) | What is meant by dynamic modules of elasticity | 2M | C04 | BL1 |
| i) | Differentiate high density concrete with ordinary concrete | 2M | C05 | BL2 |
| j) | What properties of concrete are modified required to make SCC | 2M | C05 | BL1 |

PART- B**(10*5 Marks = 50 Marks)**

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|------|--|----|-----|-----|
| 2 a) | Explain the chemical composition of cement | 5M | C01 | BL4 |
| b) | Give examples of chemical admixtures | 5M | C01 | BL1 |

OR

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|------|---|-----|-----|-----|
| 3 | Write the procedure to find settling time of cement | 10M | C01 | BL1 |
| 4 a) | Explain thermal properties of aggregates | 5M | C02 | BL4 |
| b) | Explain how to draw grading curve | 5M | C02 | BL4 |

OR

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|---|--|-----|-----|-----|
| 5 | Write the experimental procedure to find out
(i) bulk density (ii) adsorption
(iii) Moisture content of fine aggregate | 10M | C02 | BL1 |
|---|--|-----|-----|-----|

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|-----------|--|-----|-----|-----|
| 6 | a) Explain various environmental factors affecting the workability of concrete | 5M | C03 | BL4 |
| | b) What is meant by revibration of concrete? | 5M | C03 | BL1 |
| OR | | | | |
| 7 | Write the experimental procedure to prepare fresh concrete | 10M | C03 | BL1 |
| 8 | a) What are the physical properties of concrete | 5M | C04 | BL1 |
| | b) Write the procedure to find out split tensile strength of concrete | 5M | C04 | BL1 |
| OR | | | | |
| 9 | Explain various factors contributing the gain of concrete strength | 10M | C04 | BL4 |
| 10 | a) Explain the BIS Method of mix design | 5M | C05 | BL4 |
| | b) Explain the significance of no fines concrete | 5M | C05 | BL4 |
| OR | | | | |
| 11 | Differentiate the light weight concrete with High density concrete | 10M | C05 | BL2 |

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