

Supplementary Examination – Summer 2022

Course :.TY B-Tech

Branch : Civil Engg.

Semester : VI

Subject Code & Name : BTCVC603 Concrete Technology

Max Marks : 60

Date : / /

Duration: 3.45 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

| | (Level/CO) | Marks |
|--|------------|-------|
| Q.1 Solve Any Two of the Following | | |
| A) Explain dry process of manufacturing of portland cement. Also draw a flow chart of this method. | CO1 | 06 |
| B) Enlist types of Cement. Explain any one. | CO1 | 06 |
| C) Explain Initial & final setting time test carried out on cement. | CO1 | 06 |
| Q.2 Solve Any Two of the Following | | |
| A) Write short notes on classification of Aggregate. | CO1 | 06 |
| B) Explain factors affecting workability. | CO2 | 06 |
| C) Enlist types of curing. Explain membrane curing. | CO2 | 06 |
| Q.3 Solve Any Two of the Following | | |
| A) Explain High strength concrete in detail. | CO2 | 06 |
| B) Explain effect of W/C ratio on strength of concrete. | CO2 | 06 |
| C) Explain types of admixtures and their purposes. | CO2 | 06 |
| Q.4 Solve Any two of the Following | | |
| A) Explain creep and shrinkage of concrete. | CO2 | 06 |
| B) Explain Alkali aggregate reaction.. | CO2 | 06 |
| C) Explain factors contributing to cracks in concrete. | CO2 | 06 |
| Q.5 Solve Any Two of the Following | | |
| A) Explain Non destructive testing of concrete. | CO2 | 06 |
| B) Explain quality measurement in concrete construction. | CO3 | 06 |
| C) Explain Segregation and bleeding of concrete. | CO1 | 06 |

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|-------------|---|-----|------|
| C) | Enlist the method used for ground improvement of cohesion less soil and explain any one of them with neat sketch. | CO4 | (06) |
| | | | |
| Q. 5 | Solve Any One of the following. | | |
| A) | Explain in detail the types of grouts in grouting technique of soil. | CO5 | (06) |
| B) | Write the application of displacement compaction grouting technique of soil with neat sketch | CO5 | (06) |
| C) | Write factors affecting selection of construction equipment. | CO5 | (06) |
| | *** End *** | | |