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Roll No. ....

220731

**3rd Sem / Branch : Civil**  
**Sub.: Concrete Technology**

Time : 3Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 What is concrete? (CO3)
- a) A mixture of homogenous materials
  - b) A mixture of material and hydrogen
  - c) A mixture of cement and hydrogen sulphide
  - d) A mixture of cement, water, and aggregates
- Q.2 Hydration of cement is chemical reaction of cement with (CO5)
- a) Base                      b) Acid
  - c) Salt and acid          d) Water
- Q.3 Which of the following stress can Plain cement concrete endure? (CO3)
- a) Shear stress
  - b) Tensile stress
  - c) Compressive stress
  - d) Tensile, compressive and shear stresses

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- Q.4 Which of the following is used to test the Standard consistency of cement? (CO5)

- a) Duff Abrams apparatus
- b) Soundness meter
- c) Vicat apparatus
- d) Le Chatalier apparatus

- Q.5 What are Plasticizers? (CO5)

- a) Which reduces water for workability
- b) Which oxidizes water for workability
- c) Which decreases workability at the same water content
- d) Which adds water for workability

- Q.6 Which of the following is not a type of Non-Destructive testing? (CO6)

- a) Ultrasonic test
- b) Eddy current testing
- c) Compression testing
- d) Visual testing

**SECTION-B**

**Note:** Objective/Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 In 456:2000 has specified full strength of concrete \_\_\_\_ Days. (CO3)

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- Q.8 Slump cone test is used to determine \_\_\_\_\_. (CO4)
- Q.9 The standard size of a concrete cube for compressive strength test is \_\_\_\_\_ mm. (CO3)
- Q.10 M15 grade of concrete approximate proportion \_\_\_\_\_. (CO4)
- Q.11 What percentage of aggregates are required in concrete in terms of volume \_\_\_\_%. (CO1)
- Q.12 Permissible compressive strength of M30 concrete grade is \_\_\_\_\_. (CO4)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the Slump Test? (CO3)
- Q.14 Define fineness modulus? (CO2)
- Q.15 Write the name of ingredient of Cement? (CO5)
- Q.16 Classify the Aggregate according to size? (CO1)
- Q.17 What do you mean by soundness of cement? Write the test name of soundness test? (CO5)
- Q.18 Define Non Destructive Test and name the various type Non Destructive Test? (CO6)
- Q.19 What is water cement ration Law? (CO5)

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- Q.20 Differentiate between rich and lean mix? (CO4)
- Q.21 Differentiate between segregation and bleeding? (CO4)
- Q.22 Give importance of non-destructive test? (CO6)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Give the test for finding the flakiness index on an Aggregates? (CO1)
- Q.24 Explain the Properties of Aggregate? (CO2)
- Q.25 What is the bulking of sand? Explain the procedure to find the Bulking Percentage? (CO4)

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