No. of Printed Pages : 4 220731
Roll No. .....

3rd Sem / Civil Engineering
Subject:- Concrete Technology

Time : 3Hrs. M.M. : 60

SECTION-A

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

Q.1 What is the primary purpose of using silica fume in concrete? (CO1)

a) To increase strength

b) To improve workability

c) To reduce shrinkage

d) To enhance durability

Q.2 Which of the following types of cement is suitable for sulfate-resistant applications ? (CO2)

a) Ordinary Portland Cement

b) Rapid Hardening Cement

c) High-Alumina Cement

d) Sulphate-Resisting Cement

Q.3 What is the recommended water-cement ratio for a concrete mix with a slump of 100-150mm? (CO3)

a) 0.5-0.6 b) 0.6-0.7

c) 0.7-0.8 d) 0.8-0.9

Q.4 What is the purpose of using a retarding admixture in concrete? (CO4)

a) To increase strength

b) To improve workability

c) To reduce shrinkage

d) To delay setting time

Q.5 Which of the following is a type of aggregate used in high-strength concrete? (CO5)

a) Granite b) Basalt

c) Quartz d) Limestone

Q.6 What is the purpose of using a superabsorbent polymer in concrete? (CO5)

a) To increase strength

b) To improve workability

c) To reduce shrinkage

d) To enhance durability

SECTION-B

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

Q.7 The process of compacting concrete using a vibrating table is called_____. (CO1)

Q.8 The fineness modulus of a fine aggregate sample is_____. (CO2)

Q.9 The purpose of using a corrosion inhibitor in concrete is to_____. (CO3)

Q.10 The recommended air content for concrete exposed to freeze-thaw cycles is _____. (CO4)

Q.11 The type of cement suitable for high-temperature applications is_____. (CO5)

Q.12 The purpose of using a fly ash in concrete is to_____. (CO5)

SECTION-C

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

Q.13 Describe the types of aggregates used in concrete. (CO1)

Q.14 Explain the concept of bleeding in concrete. (CO2)

Q.15 Describe the differences between wet and dry mixing. (CO2)

Q.16 What are the precautions to be taken during finishing of concrete (CO3)

Q.17 Explain the concept Batching of cement. (CO3)

Q.18 What are the precautions to be taken during finishing of concrete? (CO4)

Q.19 Explain the concept of hydration in concrete. (CO4)

Q.20 Explain the purpose of using a waterproofing admixture in concrete. (CO4)

Q.21 Describe the type of cement used in sulfate -resistant applications. (CO5)

Q.22 Describe the type of admixtures used in concrete. (CO5)

SECTION-D

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

Q.23 Explain the factors affecting the durability of concrete. (CO2)

Q.24 Explain the principles of concrete mix design for high -strength concrete. (CO5)

Q.25 Describe the methods of testing concrete for workability. (CO3)