

No. of Printed Pages : 4 180741/170741/120741/
Roll No. 030741

**4th Sem / Branch : Civil Engg/Brick Tech.,
Constr.mgmt,Highway Engg.
Subject:- Concrete Technology**

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Strength of concrete _____ with age (CO-1)
a) equal b) increases
c) decrease d) none of the above
- Q.2 Initial setting time is maximum for (CO-2)
a) Portland-pozzolana cement
b) Portland-slag cement
c) Low heat portland cement
d) High strength portland cement
- Q.3 Workability increases with (CO-3)
a) Increase in Porosity
b) Increase in water content
c) Finer aggregates
d) High temperature

- Q.4 For a w/c ratio of 0.6 the water content per bag of cement is (CO-4)
a) 10 Kg b) 20 Kg
c) 30 Kg d) 40 Kg
- Q.5 The number of bags of cement required per cubic meter of 1:2:4 (CO-6)
a) 5 to 6 b) 4 to 5
c) 3 to 4 d) 2 to 3
- Q.6 Slump Test is not suitable for concrete of (CO-5)
a) high workability b) low workability
c) medium workability d) None of the above
- Q.7 Identify the correct statement which corresponds to accelerator : retarder (CO-7)
a) $\text{CaCl}_2 : \text{CaSO}_4$ b) $\text{NaCl} : \text{CaCl}_2$
c) $\text{NaOH} : \text{KOH}$ d) $\text{KOH} : \text{NaOH}$
- Q.8 Advantage of silica fume concrete is (CO-8)
a) less consumption of cement
b) Increase in early age strength
c) Control alkali silica reaction
d) all of the above
- Q.9 Expansion joints are provided in a structure if its length is more than (CO-9)
a) 45m b) 35m
c) 25m d) 15m
- Q.10 Increase in water content _____ workability (CO-4)
a) Decreases b) Increases
c) Both a and b d) None of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 The process of carrying the concrete mix from place of its mixing to final position of deposition is called _____ (CO-9)
- Q.12 For hardened concrete two important parameter are _____ and _____ (CO-9)
- Q.13 Calcium sulphate is used as _____ admixtures. (CO-6)
- Q.14 The nominal mix corresponding to M_{20} is _____ (CO-5)
- Q.15 The workability _____ with increase in size of aggregates (CO-4)
- Q.16 Water cement ratio was established by _____ (CO-3)
- Q.17 Initial setting time of quick setting cement is _____ minute (CO-2)
- Q.18 The mixture of cement and water is known as _____ (CO-1)
- Q.19 Before the initial setting time the stage is ____ (CO-4)
- Q.20 Which shape of aggregates increases workability ? (CO-3)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Describe various types of joints (CO-8)
- Q.22 Write a short note on Ready Mixed Concrete (CO-7)

(3) 180741/170741/120741/
030741

- Q.23 What is the function and use of an accelerator ? (Co-6)
- Q.24 Enumerate various advantage of concrete (CO-1)
- Q.25 What is creep? On what factors does it depends ? (CO-4)
- Q.26 Explain th functions of admixtures. (Co-6)
- Q.27 What is mixing? Explain methods of mixing (CO-8)
- Q.28 What are the limitation of w/c ratio law? (CO-3)
- Q.29 What do you understand by honey combing ? (CO-4)
- Q.30 Give the difference between nominal mix and controlled mix (Co-5)
- Q.31 Write a short note on Rebound Hammer (CO-9)
- Q.32 What is the Principle of Grading ? Define types of grading. (CO-2)
- Q.33 What is the importance of proper storage of cement ? (CO-8)
- Q.34 What is heat of hydration ? Name the three grades of OPC commonly being used (CO-2)
- Q.35 Write a short note on cold weather concreting (CO-7)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain the properties of concrete in hardened stage (CO-4)
- Q.37 Explain the methods of curing (CO-8)
- Q.38 Define slump Test for workability of concrete (CO-4)

(4900)

(4) 180741/170741/120741/
030741