

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

**4th Sem / Branch : Civil Engs/Brick Tech.,  
Constr.mgnt,Highway Engs.**

**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

(1) 180741/170741/120741/  
030741

- 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

(2) 180741/170741/120741/  
030741

## **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)

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)