

No. of Printed Pages : 4
Roll No.

180741/170741/120741
/030741

**4th Sem / Branch : Civil, 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 Setting time of cement decreases by adding: (CO2)
a) gypsum b) hydrogen peroxide
c) calcium chloride d) sodium oxide
- Q.2 For quality control of Portland cement the test essentially done for: (CO2)
a) setting time b) soundless
c) compressive strength d) all the above
- Q.3 A concrete is said to be workable if: (CO4)
a) it shows sign of bleeding
b) it shows sign of segregation
c) it can be easily mixed, place and compacted
d) it is in the form of a paste
- Q.4 Water cement ratio is generally expressed in volume of water required for: (CO3)
a) 20kg b) 30kg
c) 40kg d) 50kg
- Q.5 Shrinkage in concrete can be reduced by using: (CO5)
a) low water cement ratio
b) low cement in the concrete
c) proper concrete mix
d) all the above

(1)

180741/170741/
120741/030741

Q.6 The total number of grades of concrete stipulated in IS: 456-2000 are : (CO6)

- a) 15 b) 10
c) 3 d) 5

Q.7 An accelerator shortens all of the following except: (CO7)

- a) setting time
b) period of curing
c) period of removal of formwork
d) strength of concrete

Q.8 Sometime when the concrete is partially mixed at the central plant and mixing if completed enroute the concrete is known as: (CO8)

- a) transit mix concrete b) ready mix concrete
c) shrink mix concrete d) none of these

Q.9 Curing of pavements, floors, roof and slab is done by: (CO9)

- a) membrane method
b) ponding method
c) covering surface with bags
d) sprinkling water method

Q.10 The circulation of air in a cement warehouse should be: (CO9)

- a) forced air circulation b) average
c) maximum d) minimum

SECTION-B

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

Q.11 The chemical reaction between cement and water is called _____ (CO9)

Q.12 _____ apparatus is used to determining initial and final setting time of cement. (CO2)

(2)

180741/170741/
120741/030741

- Q.13 Lesser the water-cement ratio _____ is the strength of concrete. (CO3)
- Q.14 As the slump increases workability decreases. (True/False) (CO4)
- Q.15 Tensile strength of concrete is about _____ percent of its compressive strength. (CO5)
- Q.16 The admixtures used in hot weather concreting are called _____. (CO7)
- Q.17 The curing in cold weather should be continued for 3 days only. (True/False) (CO8)
- Q.18 The volume of one cement bag of cement is 0.05m^3 . (True/False) (CO9)
- Q.19 Cement bags should be stored _____ centimeter away from the wall. (CO9)
- Q.20 Magnetic methods are used to measure _____ of reinforcement in R.C.C. (CO10)

SECTION-C

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

- Q.21 What are the requirements of a good concrete? Explain. (CO1)
- Q.22 Give the classification of aggregates according to their size. (CO2)
- Q.23 What do you understand by fineness of cement? Give the procedure to determine the fineness of cement. (CO2)
- Q.24 What is water cement ratio? What is its importance in concrete strength? Explain. (CO3)
- Q.25 State the difference between segregation and bleeding. (CO4)
- Q.26 Explain the properties of concrete in green stage. (CO5)

(3)

180741/170741/
120741/030741

- Q.27 Differentiate between the following- (CO6)
- Controlled and ordinary concrete
 - Preliminary cube strength and works cubes strength
- Q.28 State the factors to be considered while deciding upon the use of admixtures. (CO7)
- Q.29 What are the various precautions to be observed before concreting in cold weather? Explain. (CO8)
- Q.30 What are the methods of compaction of concrete? Explain. (CO9)
- Q.31 Explain the method of repairing the old concrete work. (CO9)
- Q.32 Give importance of non-destructive test. (CO10)
- Q.33 What are the requirements of a good warehouse? Explain. (CO9)
- Q.34 How will you determine the workability of a concrete using compaction factor test? (CO4)
- Q.35 What is bulking of sand? Explain and write note on its importance. (CO2)

SECTION-D

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

- Q.36 Explain the procedure to determine strength of aggregates using Impact Test. Draw the diagram impact testing machine. (CO2)
- Q.37 What are the various methods used for transportation of concrete. Explain in details. (CO9)
- Q.38 What are the various chemical constituents of ordinary Portland cement? Explain the function and effect of each chemical constituent. (CO2)

(Note: Course outcome/CO is for office use only)

(1980)

(4)

180741/170741/
120741/030741