

No. of Printed Pages : 4

Roll No. 170741/120741/30741

**4th Sem. / Civil, Brick Tech.,
Const. Mgmt, Highway Engg.
Subject : Concrete Technology**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory. Fill in the blanks. (10x1=10)

Fill in the Blanks

- Q.1 The mixture of cement and water is known as _____ (CO-1)
- Q.2 Low heat Portland cement is usually used in _____ (CO-2)
- Q.3 Percentage of voids are high for _____ aggregates. (CO-2)
- Q.4 The aggregates are said to be _____ graded when certain sizes of particles are missing. (CO-2)
- Q.5 Smaller size specimen gives _____ strength than large size specimen of concrete. (CO-3)
- Q.6 Angular and rough surface aggregates have _____ workability. (CO-4)

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- Q.7 Separation of coarser particles from concrete mix is termed as _____ (CO-4)
- Q.8 Grades upto _____ are designated as ordinary concrete (CO-5)
- Q.9 There is no guarantee in achieving the desired strength in case of _____ concrete. (CO-5)
- Q.10 Most Commonly used accelerator admixture is _____ (CO-6)

SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

- Q.11 Define Water cement ratio. (CO-3)
- Q.12 What do you mean by batching? (CO-8)
- Q.13 Name five materials used as accelerators. (CO-6)
- Q.14 Name the types of concrete mix. (CO-5)
- Q.15 What is an output of a mixer? (CO-8)
- Q.16 Define Retarders (CO-6)
- Q.17 What is the effect of high temperature on concrete? (CO-7)
- Q.18 Explain Segregation of Concrete. (CO-4)
- Q.19 What are the drawbacks of Rebound hammer test? (CO-9)

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- Q.20 What do you mean by final setting time? (CO-2)
- Q.21 Why excessive compaction not good for concrete? (CO-8)
- Q.22 Why is gypsum added to cement? (CO-2)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. 8x5=40

- Q.23 Define Fineness of cement. How can we find the fineness of cement? (CO-2)
- Q.24 Explain operation of Mixers. What do you understand by output of a mixer. (CO-8)
- Q.25 What do you understand by hot weather concreting? Explain effects of hot weather on concreting operations. (CO-7)
- Q.26 What are the main objectives of mix design? (CO-5)
- Q.27 Define bleeding of concrete. Explain its causes and prevention. (CO-4)
- Q.28 What do you mean by curing? What are its objectives? (CO-8)
- Q.29 Write a brief note on Fly Ash as admixture with its uses. (CO-6)

- Q.30 Briefly describe limitations of W/c ratio law. (CO-3)

- Q.31 Explain how the following affect the workability of concrete. (CO-4)

- a) Size of aggregate
- b) Grading of aggregates.

- Q.32 Write a note on silica fume concrete with advantages. (CO-7)

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. 3x10=30

- Q.33 What is compaction? Explain different methods of compaction. (CO-8)
- Q.34 Explain the tremic method for under water concreting with the help of diagram. (CO-7)
- Q.35 Explain the following in case of Hardened concrete. (CO-4)
- a) Durability
 - b) Impermeability
- Q.36 Explain following properties of aggregates: (CO-2)
- a) Bulking of sand
 - b) Bulk density of aggregates