

END SEMESTER/ RE-TEST EXAMINATION, 2020

Semester: 5th

Course Code: CT-502

Course Title: Concrete Technology

Time: 3Hrs.

Full Marks: 70

PART -A (25 Marks)

Multiple Choice Questions

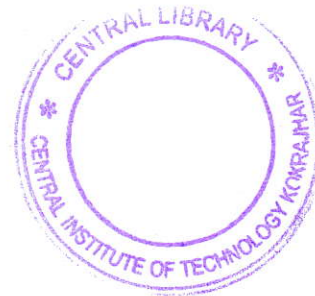
1. Which cement contains high percentage of C_3S and less percentage of C_2S ?
a) Rapid Hardening Cement b) Ordinary Portland Cement c) Quick Setting Cement d) Low Heat Cement (2)
2. Which cement is used to store for longer duration in wet climatic conditions?
a) Expansive Cement b) Ordinary Portland Cement c) Hydrophobic Cement d) Quick Setting Cement (2)
3. What is the size of fine aggregates?
a) 4.75mm b) $< 4.75mm$ c) $> 4.75mm$ d) 12mm (2)
4. Bulking _____ with increase in moisture.
a) Increase b) Decrease c) First increase then decreased d) First decrease then increase (2)
5. What do you mean by admixtures?
a) Ingredients which are added to in cement before or after concrete mix
b) Ingredients which are added to make aggregates healthier
c) Ingredients added in cement to make it shinier
d) Ingredients added in concrete to make good workability (2)
6. Which of the following statement is incorrect about the function of admixtures.
a) To accelerate the initial set of concrete, to speed up the rate of development of strength at early ages
b) To enhance the workability
c) To reduce the segregation in grout and concrete mixers
d) To retard the initial set, to keep concrete workable for a shorter time for placement (2)

Fill in the Blanks

7. Admixtures which cause early setting, and hardening of concrete are called _____ (2)
8. Workability of concrete is directly proportional to _____ (2)
9. Compound of cement liberates highest heat is _____ (2)
10. Chemical composition that has highest content in OPC is _____ (2)
11. Concrete placed in cold weather will take _____ time to gain strength. (2)
12. A lower water cement ratio will leads to _____ (2)
13. The meaning of '20' in M20 grade concrete is _____ (1)

PART B (Marks 45)

Answer any Five Question



14. Write short notes on
a) Yield of Concrete b) Grades of concrete c) Curing (9)
15. Write down about the whole manufacturing process of cement. (9)
16. Define workability. What are the various factors affecting the workability. (9)
17. Discuss rheology and rheological properties of concrete.in details. (9)
18. Explain the processes involved in the manufacturing of concrete. (9)
19. What are admixtures? What are the different types and uses of admixtures? (9)