**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**End semester Examination – November 2016**

**Subject Title: Concrete Technology Time : 3 hours**

**Subject Code: 09CE241/CE274 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. Expand the term "CSH" ---------------

2. In OPC 53 grade, '53' denotes ---------------

3. The size of aggregate used for residential construction --------------

4. Admixture which is used to slow down the chemical process of hydration -------------

5. More precise method which is used to measure the workability of concrete -------------

6. During concreting, concrete constituents get separated it is called -------------

7. Empirical relation used to find the young's modulus of concrete --------------

8. Give one of the example related to durability issues on concrete ----------

9. List some of the fibers used for making fiber reinforced concrete ---------------

10. Name the concrete it flows, fills and passing through the reinforcement without any external vibration -----------

**PART – B (5 x 3 = 15 MARKS)**

11. Write the name of the compounds in cement?

12. List the tests to be conducted to assess the quality of aggregate?

13. What are the different methods used for curing the concrete?

14. Write some of the environmental agents which affects the durability of concrete?

15. Differentiate weigh batching and volume batching?

**PART – C (5 x 15 = 75 MARKS)**

16. Briefly explain different types of cement and its properties with application?

(OR)

17. Briefly explain the testing to be conducted to assess the quality of cement?

18. Write the tests to be conducted to check the quality of fine aggregate?

(OR)

19. Write short notes on admixtures and construction chemicals used for construction of buildings?

20. Discuss the influencing factors which affects the strength of concrete?

(OR)

21. Explain in detail the different curing methods used in concrete construction?

22. Write short notes on the following

i) Elastic modulus ii) Creep iii) Shrinkage

(OR)

23. Briefly explain the following

i) Sulphate attack ii) Acid attack iii) Chloride attack

24. Write the concepts of mix design? Also explain the variables in concrete mix proportioning?

(OR)

25. Discuss the behaviour and application of the following special concretes?

i) Aerated concrete ii) No fines concrete iii) Fiber reinforced concrete