

Vision: "To impart quality technical education beneficial to industry and the society in the field of Civil Engineering.".

**Mission:** ●To arrange academic and technical expertise.

- To improve the practical knowledge of the student as per current scenario of industry.
- To make the students socially and ethically responsible.

**Assignment No :- 01** 

**Topic Name :-Cement** 

- 1. State Bougue's compounds with their effect on properties of cement.
- 2. Explain the step by step procedure of standard consistency test on cement.
- 3. Define hydration. Explain in brief heat of hydration of cement.
- 4. Name any four types of cement and state their uses.
- 5. State the effect of storage of cement on its strength. State four precautions while storing the cement.
- 6. Explain the step by step procedure of initial & final setting time of cement.

Date of Submission:-Within the one week after completion of the chapter.



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**Assignment No :- 02** 

**Topic Name :-Aggregate** 

- 1. Explain the Bulking of sand. State the effect of bulking of sand on concrete.
- 2. State any four properties of coarse aggregate & explain it.
- 3. Explain the qualities of good aggregate.
- 4. What are the impurities in aggregate? In what way, they affect concrete?.
- 5. Define Flakiness index and Elongation index.
- 6. Explain silt content test?
- 7. Sieve analysis was conducted on 3000gm of fine aggregate and following observations were recorded. Find fineness modulus of sample.

Seive size (mm)	4.75	2.36	1.18	0.6	0.30	0.15	0.075	pan
Weight of FA retained (gm)	150	235	830	725	515	298	142	105

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Assignment No :- 03

**Topic Name :-Concrete** 

- State the necessity of supervision for concreting operations.
- Define workability of concrete & factors affecting on workability.
- Write the procedure for determination of compressive strength.
- Explain Segregation and Bleeding?
- Enlist the various concrete operations in sequence and explain any one in detail.
- Explain the significance of water/cement ratio.

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Assignment No :- 04

**Topic Name :- Concrete & testing of concrete** 

- Explain IS method of mix design with steps.
- State objectives of mix design.
- State different methods of NDT and explain Rebound Hammer Test.
- Explain in detail ultrasonic pulse velocity test.

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**Assignment No :- 05** 

**Topic Name: - Quality control of concrete** 

- What is meant by batching? Explain the two types of batching.
- What are the precautions to be taken during transportation of concrete.
- State the need of water proofing.name two materials used for water proofing.
- Explain the different methods of curing and explain any one method in detail.
- Draw a sketch for formwork for a foundation of RCC column footing.
- Compare between tilting and non-tilting types of mixer.

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