

BTS 165 (C)

B.TECH. DEGREE III SEMESTER (SUPPLEMENTARY) EXAMINATION IN  
CIVIL ENGINEERING  
JUNE 2002

**CE 304 CONCRETE TECHNOLOGY**  
(1995 & 1998 Admissions)

Time: 3 Hours

Maximum Marks: 100

(All questions carry **EQUAL** marks)

- I. (a) With a neat sketch of the apparatus explain the standard consistency of ordinary Portland cement.  
(b) Differentiate between high alumina cement and ordinary Portland cement.

**OR**

- II. (a) Explain the importance of setting time tests.  
(b) Differentiate between sulphate resisting cement and super sulphate cement.

- III. What are the usual impurities associated with coarse aggregate? How are they eliminated?

**OR**

- IV. Define elongation index of coarse aggregate. Explain the I:S method to determine elongation index of coarse aggregate.

- V. Explain in detail different types of workability agents available in market.

**OR**

- VI. Describe miscellaneous admixtures used in concreting.

- VII. (a) What is meant by workability of concrete?  
(b) Explain different factors affecting workability of concrete.

**OR**

- VIII. Write short notes on:  
(i) Shrinkage and creep  
(ii) Elasticity of concrete  
(iii) Compaction of concrete

- IX. Write step by step procedure for concrete mix design by ACI method.

**OR**

- X. Distinguish between sulphur infiltrated concrete and fibre reinforced concrete.

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