

IV B.Tech II Semester Supplementary Examinations, April/May 2006
CONCRETE TECHNOLOGY
(Civil Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

NOTE: Assume suitably any missing data.
Suitable graphs are permitted.

- 1.(a) What are the various types of cement?
(b) How do you find consistency of cement?
(c) What is “Bogue’s compounds”. What is its role in the cement. [16]
2. (a) How do you find Bulking of fine aggregate.
(b) Write the procedure for determination of aggregate crushing value. [16]
3. (a) What is workability? How do you find workability by vee-bee Test.
(b) What are the various factors affecting workability. Explain. [16]
4. (a) What is influence of Coarse Aggregate on strength of concrete.
(b) What are the various types of curing. Write about steam curing at ordinary pressure and at high pressure. [16]
5. (a) Write about Non Destructive Testing.
(b) Write about the relationship between compressive strength and tensile strength of hardened concrete. [16]
6. (a) Write about the procedure of split tensile test.
(b) Write about the procedure of mix design by ACI method. [16]
7. (a) Write about Ready Mixed concrete.
(b) Write about Vacuum processed concrete. [16]
8. Design M₂₀ grade concrete:
(a) Characteristic compressive strength required in field at 28 days–20MPa
(b) Max size of aggregate–20mm (angular)
(c) Degree of workability–0.89
(d) Degree of control–good
(e) Type of exposure–Mild
Sp.Gr of cement–3.22
Sp.Gr of C-A–2.65
Sp.Gr of F-A–2.62
Sand-zone III [16]
