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CE-402

B.E. IV Semester

Examination, June 2013

Concrete Technology

Time : Three Hours

Maximum Marks : 70/100

Note: Attempt five questions in all, taking one from each unit.
There is internal choice in each unit.

Unit - I

1. a) Explain the various types of admixtures and its various important function?
b) What are various types of cement and describe manufacturing process of Portland cement?

OR

2. a) Explain inspection and testing of material as per Indian standard specification?
b) Describe the classification of concrete with their advantages and disadvantages?

Unit - II

3. a) What are stress and strain characteristics of concrete?
b) Describe in brief "Rheology of concrete"

OR

4. a) What do you mean by creep of concrete?
b) Define micro-cracking of concrete? Discuss its effect on the strength of concrete.

Unit - III

5. a) Describe various factors influencing mix design?
- b) Briefly describe the concrete mixes with Surkhi and other Pozzolanic material?

OR

6. a) Explain in brief computer aided design of concrete mix?
- b) What are various methods of concrete mix design? Describe any one in detail?

Unit - IV

7. a) How is the concreting performed under water? Explain briefly.
- b) Describe the batching of concretes through batching plant.

OR

8. a) Describe the repair technology used for concrete structures.
- b) Write brief notes on the following:
 - i) Quality control of concrete
 - ii) Nondestructive testing of hardened concrete.

Unit - V

9. What are the polymer concrete composites? Describe any two in detail.

OR

10. Write short notes on the followings :
 - i) Shotcrete
 - ii) Prestressed concrete
 - iii) Rubble concrete
 - iv) Resin concrete
