

**B.Tech. Degree VII Semester Examination,
November 2006**

**CE 705 (B) ADVANCED CONSTRUCTION TECHNIQUES
AND FIELD QUALITY CONTROL**
(2002 Admissions onwards)

Time: 3 Hours

Maximum Marks: 100

Assume suitable data wherever necessary

- I 'Improved building technologies and construction techniques affected the speed, accuracy and economy in the construction'. Write a brief essay on the topic. (20)
OR
- II a) Write brief essay on the 'light construction techniques'.
b) Explain the techniques of prestressing concrete members. (20)
- III a) Write brief essay on ready mix concrete.
b) Write brief essay on geo synthetics and its applications in construction. (20)
OR
- IV State the main equipment /machinery requirements for a tunneling operation through a hillock with hard soil and laterite rock. Explain the construction techniques. (20)
- V Prepare brief material specification of material required for a road work of NH to be incorporated in a contract as 'particular specifications pertaining to materials. (20)
OR
- VI Write **brief notes** on the following:
(i) CPWD standards (ii) IRC standards
(iii) RDSO standards (iv) Quality control system (20)
- VII Prepare check lists for the purpose of inspection of the following types of operation/works:
(i) Demolition (ii) Underground works
(iii) Structural steel works (iv) Sanitary works (20)
OR
- VIII As senior engineer in charge of an inspection team consisting of various specialists, prepare your plan of inspection to include the way you would conduct the inspection. List out the points you consider before, during and after inspection of a bridge construction work. (20)
- IX As a consultant you are required to render advices and direct actions for obtaining ISO certification for a construction company engaged in design, planning, construction and commissioning of water treatment plants and allied civil works. Prepare a plan of action you propose in sequential order to obtain ISO certification. (20)
OR
- X Write **brief notes** on the following:
(i) Quality policy and system
(ii) Standards for personnel training
(iii) Performance audit
(iv) Prevention of non conformities and remedial actions (20)
