

***B.Tech. Degree VII Semester (Supplementary) Examination,  
July 2009***

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

Time: 3 Hours

Maximum Marks: 100

- I Light constructions reduce the overall weight of the superstructure and sub-structure and thereby affect economy, speed and ease of construction. Briefly explain the significances of light construction citing the various techniques. (20)
- OR**
- II Briefly explain the following:  
i) Prestressing concrete  
ii) Transportation and pumping of concrete. (20)
- III Write a brief essay on the tunneling operation through medium hard soil for a length of 1000 meters. (20)
- OR**
- IV Write brief essays on the material, applications and advantages of the following:  
i) Geosynthetics  
ii) Ferro cement (20)
- V Prepare checklists of inspection (prior to, during and after inspection) points in the case of following works:  
i) Centering and shuttering  
ii) Blasting (20)
- OR**
- VI Write brief notes on the following:  
i) Preparations for inspection  
ii) Field Quality Control  
iii) Field records with respect to QC  
iv) Quality Assurance plans. (20)
- VII State the main tests to be carried out on the road aggregates with the purposes of each test. Explain any two tests on road aggregate. (20)
- OR**
- VIII Write brief essays on the following :  
i) MOST standards  
ii) CPWD standards (20)
- IX Write an essay on the procedure for obtaining ISO 9001 certification by a medium sized construction company having a turn over of Rs.100 crores per year. (20)
- OR**
- X Write short notes on the following:  
i) Quality manual  
ii) Design control  
iii) Standards for personnel training  
iv) Dealing non-conformities. (20)

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