

USN

--	--	--	--	--	--	--	--	--	--



06CV32

**Third Semester B.E. Degree Examination, May/June 2010**  
**Materials of Construction**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting at least TWO questions from each part.**

**PART – A**

- 1 a. Explain the geological classification of rocks. (10 Marks)  
b. Discuss the characteristics of good building stone. (10 Marks)
- 2 a. Explain briefly the different processes involved in the manufacture of brick. (10 Marks)  
b. With a neat sketch, explain the burning of bricks in Hoffman's kiln. (10 Marks)
- 3 a. Draw the cross section of an exogenous tree and name the parts. (10 Marks)  
b. Define cement. What is the chemical composition of ordinary Portland cement? (06 Marks)  
c. What do you mean by seasoning of timber? (04 Marks)
- 4 a. Define workability. What are the factors, which affect the workability of concrete? Explain slump cone test. (10 Marks)  
b. Explain the necessity of curing and explain different methods of curing. (10 Marks)

**PART – B**

- 5 a. What are the functions of,  
i) Plasticizers      ii) Retarders      iii) Air entraining agents? (10 Marks)  
b. Explain in detail segregation and bleeding in concrete. (10 Marks)
- 6 a. List the factors affecting the strength of concrete. (10 Marks)  
b. Write a note on elastic properties of concrete. (10 Marks)
- 7 a. Briefly explain the ingredients of concrete. (10 Marks)  
b. Explain bulking of sand. (10 Marks)
- 8 Write short notes on the following:  
a. Light weight concrete.  
b. NDT of concrete.  
c. Bitumen, tar and asphalt.  
d. Uses of cast iron and carbon steel. (20 Marks)

\* \* \* \* \*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.