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**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Tech. (Agril. Engg.)**

|                                  |                            |                         |
|----------------------------------|----------------------------|-------------------------|
| Semester : IV (New)              | Term : II                  | Academic Year : 2010-11 |
| Course No. : FS 242              | Title : Building Materials |                         |
| Credits : 2 (1+1)                |                            |                         |
| Day & Date : Tuesday, 26.04.2011 | Time : 14.00 to 16.00      | Total Marks : 40        |

- Note :
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

**SECTION "A"**

- Q.1 a) Describe the Geological classification of rocks in brief.  
b) Describe the method of quarrying with hand tools.
- Q.2 a) What are the constituents of good brick earth?  
b) Discuss the operation of preparation of clay for the manufacture of bricks.
- Q.3 a) What are the important properties of cement?  
b) Describe the field tests for cement.
- Q.4 a) What are the natural sources of sand?  
b) State the functions of sand in mortar.
- Q.5 a) Define cement concrete and mention its properties.  
b) What is meant by proportioning of concrete?
- Q.6 a) Draw a neat cross-section of an exogenous tree and show various components of it.  
b) Explain what is meant by felling of trees.
- Q.7 a) What is the composition of plastics?  
b) Mention the uses of plastics.
- Q.8 a) What is vulcanization of rubber? Mention its effects.  
b) Describe the properties of rubber.
- Q.9 a) What are the characteristics of a good tile?  
b) How are tiles manufactured?
- Q.10 a) What are the qualities of a good building stone?  
b) Describe the process of conversion of timber.

## SECTION "B"

Q.11 Fill in the blanks.

- 1) \_\_\_\_\_ in these rocks, the calcium carbonate predominates.
- 2) The bricks prepared by dipping mould in water every time are known as the \_\_\_\_\_ bricks.
- 3) The calcined product is known as the \_\_\_\_\_.
- 4) The sand passing through a screen with clear openings of \_\_\_\_\_ is known as the gravelly sand.

Q.12 State True or False.

- 1) The structure of wood visible to the naked eye or at a small magnification is called the microstructure.
- 2) The rubber which is obtained from latex or a viscous milky juice tapped from rubber trees is known as natural rubber.
- 3) The process of taking out stones from natural rock beds is known as quarrying.
- 4) The brick moulds are made longer by about 8 to 15 percent in all directions.

