

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Tech. (Agril. Engg.)

Semester : IV (New) Term : II Academic Year : 2013-14
Course No. : FS 242 Title : Building Materials
Credits : 2 (1+1)
Day & Date : Monday, 05.05.2014 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) What are the properties of a good building stone?
b) Define quarrying of stone and explain any one method in detail.
- Q.2 a) What are the constituents of good brick earth?
b) Enlist and explain in short the operations involved in manufacturing of bricks.
- Q.3 a) What are the cement ingredients and their functions?
b) Explain in brief the setting action of cement.
- Q.4 a) What are the functions of sand in mortar?
b) What are the uses of mortar?
- Q.5 a) What are the important properties of cement concrete?
b) Write in detail about the effect of water- cement ratio in cement concrete.
- Q.6 a) Describe the various types of tiles.
b) Explain in brief the process of manufacturing of tiles.
- Q.7 a) What are qualities of a good timber for various engineering purposes?
b) What are the different market forms of timber?
- Q.8 a) Discuss in brief the classification of plastics.
b) What are the different uses of plastics?
- Q.9 a) Enlist the properties of rubber.
b) Explain in short the process of obtaining natural rubber.
- Q.10 a) Define workability. What are the factors affecting workability of concrete?
b) Define curing. What are the objects of curing of concrete?

SECTION "B"

- Q.11 Fill in the blanks.
- 1) Gypsum is an example of _____ rocks.
 - 2) The _____ in excess makes the cement unsound.
 - 3) The inner most central portion or core of the tree is called the _____.
 - 4) A good brick earth should contain 20 to 30 per cent of _____.
- Q.12 State True or False.
- 1) Brickwork is stronger than stonework.
 - 2) The molten or pasty rocky material is known as the magma.
 - 3) Natural rubber is obtained from latex or a viscous milky juice tapped from rubber trees.
 - 4) The ordinary cement achieves 90 per cent strength in 28 days.

