MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUN

SEMESTER END EXAMINATION

B.Tech. (Agril. Engg.)

Semester	: IV (New)				
Course No.	: FS 242	**Term**	: II	**Academic Year**	: 2016-17
Credits	: 2 (1+1)	**Title**	: Building Materials		
Day & Date	: Tuesday, 09.05.2017	**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) Explain chemical classification of rocks.
b) What are the various uses of stones?

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 the qualities of a good timber for various engineering purposes?
b) What are the different market forms of timber?

Q.8 a) Discuss the classification of plastics in brief.
b) What are the different uses of plastic?

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 objectives 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 innermost central portion or core of the tree is called the _____.
4) A good brick earth should contain 20 to 30% of _____.

Q.12 State True or False.
1) Brickwork is stronger than stonework.
2) The molten or pasty rock material is known as magma.
3) Natural rubber is obtained from latex or a viscous milky juice tapped from rubber trees.
4) The ordinary cement achieves 90% strength in 28 days.

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