

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

Semester: V(Old)
Course No: FS-353
Credits 2(1+1)

Term: I

Academic year 2011-12
Title : Building materials
Total Marks - 40
Time: 14:00 - 16:00

- Note: 1. Solve any five 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"

- Q1 a) Explain geological and physical classification of rocks. (3)
b) Enlist common building stones with their uses. (2)
- Q2 a) What are the constituents of good brick earth? (3)
b) Enlist types of bricks. (2)
- Q3 a) Explain the functions of cement ingredients. (2)
b) What are the precautions to be taken for storage of cement. (3)
- Q4 a) Explain what is initial and final setting time of cement. (2)
b) What is meant by bulking of sand? Explain it. (3)
- Q5 a) Explain slump test to measure workability of concrete. (2)
b) Define and explain workability of concrete. (3)
- Q6 a) Why curing of concrete required. (2)
b) List ideal properties of tiles. (3)
- Q7) a) Draw a neat cross-section of an exogenous tree and show various components. (2)
b) Enumerate the various defects in timber. (3)

SECTION "B"

Q8. Fill in the blanks

- 1) The _____ may be defined as thin slabs of brick which are burnt in kiln.
- 2) A good brick earth should contain about _____% of alumina.
- 3) Proper _____ is required for the concrete after removal of the form work.
- 4) The strength of concrete gradually increases with age, if curing is _____.
- 5) Concrete is _____ in compression and _____ tension.

Q9) State true or false

- 1) Cement concrete is very strong in tension
- 2) Defects in timber can be minimized by seasoning of wood.
- 3) The ordinary cement contains two basic ingredients namely argillaceous and calcareous.
- 4) For a good building stone, its specific gravity should be greater than 2.7.
- 5) Greater the water-cement ratio, greater will be the strength of concrete.

Q10) Define the following

- 1) Cement concrete
- 2) Setting action of cement
- 3) Seasoning of timber
- 4) Workability of concrete
- 5) Compressive strength of brick.