

Code : 101211

2012 (A)

BUILDING SCIENCE

Time : 3 hours

Full Marks : 70

Instructions:

- (i) All questions carry equal marks.
 (ii) There are **TEN** questions in this paper.
 (iii) Attempt any **FIVE** questions.

1. (a) Explain physical, chemical and mineralogical analyses of soil for manufacturing of bricks. Write their merits and demerits.

(b) Describe in brief about various types of bricks and explain different tests required before use of bricks.

2. What is cement? Describe in brief the types of cement manufactured in India and their chemical composition along with their suitability for various purposes.

3. (a) What is timber? What are the properties of a good timber?

(b) What is plywood and how is it manufactured?

12AK-400/205

(Turn Over)

(2)

- (a) How is glass classified? Describe in brief the general uses of glass as a building material.
 (b) Explain the importance of lime as a building material. What are the different sources of lime?

5. (a) How are rocks classified? Briefly discuss the different classification of rocks.

STONE
 (b) What do you understand by dressing of stone? What are the different types of dressing of stones?

6. (a) What do you mean by foundation and what are their main objectives?

(b) Explain the different methods for improving the bearing capacity of soil.

7. (a) Define course, phase, stretcher, header and lap of masonry work.

(b) How is stone masonry classified? Discuss with neat sketches.

8. (a) What are the main functions of doors and windows in building? What factors do you consider while selecting the location of doors and windows?

(b) Differentiate between king post and queen post truss with the help of neat sketches.

12AK-400/205

(Continued)

(3)

9. (a) What is the main function of a floor and what are its components? List the names of different types of floor.
- (b) What are the various techniques and methods adopted to prevent dampness? Discuss in brief.

10. Write short notes on any *four* of the following :

- (a) Cavity wall
- (b) Grouting
- (c) Aluminium as a building material
- (d) Low cost building
- ~~(e)~~ Curing of concrete
- ~~(f)~~ Whitewashing and coloring
- ~~(g)~~ Pain and varnished

akubihar.com
