

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 0022**

Roll No.

--	--	--	--	--	--	--	--	--	--

**B. Tech****(SEMESTER-III) THEORY EXAMINATION, 2012-13****BUILDING MATERIALS & CONSTRUCTION****Time : 3 Hours ]****[ Total Marks : 100****Section – A**1. Attempt **all** parts. Each part carries equal marks.**10 × 2 = 20**

(a) What are rock forming materials ?

(b) Write short notes on the following :

(i) Luster

(ii) Cleavage

(iii) Hardness

(iv) Steak

(c) How are plastics classified ?

(d) What is meant by term P.V.C.N ?

(e) Discuss the causes and effects of dampness.

(f) What are the factors which affect the choice of flooring material ?

(g) Give a list of different types of door and windows.

(h) Define the following term :

Architrave, louver

(i) What are the requirements of good plaster ?

(j) Mention the tools which are required in the plastering work.

### Section – B

2. Attempt any **three** parts. Each part carries equal marks.

**3 × 10 = 30**

- (a) (i) What are the important considerations which are to be carefully attended before selecting a quarry site ?
- (ii) Describe the process of blasting rocks.
- (b) Describe the procedure of following :
  - (i) Painting of new wood work
  - (ii) Painting of an old iron work
  - (iii) Distempering
  - (iv) Varnishing
- (c) Differentiate between the following :
  - (i) Dry wood termites and subterranean termites
  - (ii) Damp proofing and termite – proofing
  - (iii) Soil insecticides and structural barriers
  - (iv) Damp proofing and water – proofing
  - (v) Hot bitumen and mastic asphalt.
- (d) Explain, with neat sketches the construction of flush doors.
- (e) Why is lath used in plaster ? Explain the use of metal laths and wooden laths in plastering.

### Section – C

Attempt **all** questions. Each questions carries equal marks.

**5 × 10 = 50**

3. Attempt any **two** parts of the following :

**2 × 5 = 10**

- (a) Briefly describe the following tests on stones : (a) durability test (b) crushing test (c) shear strength test. Also, state the significance of each of them.
- (b) Name the various types of stones which are used for building works and give in brief the specifications for a good building stone.
- (c) Describe the various weathering agencies responsible for deterioration of stones. Suggest the precautions to be exercised to reduce the decay of stones caused by these.

4. Attempt any **one** part of the following :  $1 \times 10 = 10$
- (a) What are factors to be considered for successful application of paint on cement plastered surfaces and also enumerate the properties of distempers ?
  - (b) Explain the different types of paints. Discuss the important points to be noted before the process of painting is started.
5. Attempt any **one** part of the following :  $1 \times 10 = 10$
- (a) Describe the procedure which is adopted for providing damp – proof course in an existing wall.
  - (b) Briefly describe the construction of terrazzo flooring.
6. Attempt any **one** part of the following :  $1 \times 10 = 10$
- (a) Describe, with neat sketches, how mosquito-proofing to doors, windows and ventilators, is provided.
  - (b) Explain the meanings of the following designations as recommended by the BIS : 8 DS 20; 10 DT 21; 12 DT 21; 6 WS 12; 10 WT 13; 12 V 6
7. Attempt any **two** parts of the following :  $5 \times 2 = 10$
- (a) Briefly describe how the plaster with cement mortar and lime mortar is carried out in three coats.
  - (b) What are the fibrous plaster boards ? Describe the process of making fibrous plaster boards.
  - (c) What is pointing ? How is it carried out ? What are its different types ?
-