

**SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, FEROZEPUR**

**ROLL NO :**

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**Total number of pages:[2]**

**Total number of questions:[6]**

**B.ARCH. – 1<sup>st</sup> Sem.**

**Building Science-I (Materials)**

**Subject Code : AR-106**

**Batch: 2015**

**Time allowed: 3 Hrs**

**Max Marks: [60]**

**Important Instructions:**

- 1) Assume any missing data wherever necessary.
- 2) Attempt any one question from each part.
- 3) Due credit will be given to neatness and adequate dimensions.
- 4) Students are required to bring their own Architectural Instruments, etc.
- 5) No sharing will be allowed.

**PART- A**

**20 Marks**

- Q1. i) Draw a neat cross-section of an exogenous tree and show various components of it?
- ii) What are ply woods? How are they manufactured? State their advantages and disadvantages?

**OR**

- Q2. i) Distinguish between ground-moulded brick and table-moulded brick.
- ii) State the important qualities of good brick.
- iii) Describe the process of burning bricks in clamps.

**PART- B**

**20 Marks**

- Q3. i) Enumerate the various sources of lime. State the constituents of limestone.
- ii) State the properties of good sand.
- iii) How mortar is classified on the basis of nature of application?

**OR**

- Q4. i) Describe with neat sketches the process of quarrying of stone.
- ii) Explain the important qualities of good building stone.
- iii) What is meant by 'preservation' of stone? Explain the methods adopted for preservation of stone.



## PART- C

20 Marks

Q5. i) What is meant by term cement concrete and explain the workability of concrete?

ii) Explain the various methods of curing of concrete.

iii) How water proofing of cement concrete is done?

OR

Q6. i) What are the advantages of cement paints and what are the precautions to be taken to avoid defects of the cement paints ?

ii) What are ingredients of a varnish? Describe briefly each one of them?