



SD-6051

B. Arch. - I (Sem - I) Examination

May / June - 2011

**Bldg. Materials & Const. Technology - I
Paper - ARC-102**

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. Arch. - 1 (Sem - 1)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Bldg. Materials & Const. Technology-I : P-ARC-102"/>	<input type="text"/>
Subject Code No. : <input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="5"/> <input type="text" value="1"/>	<input type="text" value="Student's Signature"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	

- (2) Figures to the right indicate full marks for the section.
(3) Neat sketches shall be given due weightage.

- 1 Objective questions. (True or False) 10
- (i) Great wall of China was built by burnt and sundried bricks.
 - (ii) Bricks disintegrate easily in case of fire.
 - (iii) Lime may be added in cement mortar to prevent cracking.
 - (iv) The composition of mortar used for inside and outside plaster is different.
 - (v) Load bearing construction is more popular in current times.
 - (vi) Bricks should be sprinkled with water before application of plaster.
 - (vii) Natural stone obtained from quarry.
 - (viii) Soil in Ahmedabad is black cotton soil.
 - (ix) In footing 35 degree of angle is considered to be ideal for transfer of load.
 - (x) Brick work requires less skill compared to stone work.

- 2** Write short notes with neat sketches. (any **three**) **24**
- (i) Classes of bricks.
 - (ii) Single Flemish bond.
 - (iii) Polygonal and flint stone walls.
 - (iv) Types of Mortars based on binding materials.
- 3** Sketch, Define or Explain in two sentences. **12**
- (i) Queen closer
 - (ii) Cow nose brick
 - (iii) Pit sand
 - (iv) Intrados
 - (v) List various materials of a mortar
 - (vi) Types of sand according to size of grain.
- 4** Explain and elaborate in detail with neat sketches. (any **two**) **24**
- (i) Types of sand based on their sources and properties of good sand.
 - (ii) Compare frames structure and load bearing structure.
 - (iii) Types of mortar based on nature of application.
- 5** Sketch neatly with labels. **30**
- (i) Stone Arch
 - (ii) Footing
 - (iii) Cross section through a load bearing wall
 - (iv) Plan of one brick thick English and Flemish bond
 - (v) Cill and lintel
 - (vi) Dressing stones.
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