* A E - 6 0 0 2 *

AE-6002

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

May / June – 2015

(ARC-102) Building Materials & Construction Technology – I

(D-Syllabus)

Time : **2** Hours] [Total Marks : **60**

Instructions :

(1) નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **B. ARCH. - 1 (SEM. 1)**

Name of the Subject :

☛ **Building Material & Construction Technology – I (ARC-102)**

☛ Subject Code No. : **6 0 0 2** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Figures to the right indicate full marks of the question.

(3) Support your answers with sketches where required.

1 Do as directed : **10**

(1) Rocks in which silica predominates are called _____ rocks.

(2) Compact yellow soil is good to rest foundation upon. (true/false)

(3) _____ and _____ are used for spanning of openings.

(4) The row of arches in continuation is called _____.

(5) Structural changes to walls can be made in load bearing construction. (true/false)

(6) A brick cut half along its length is known as _____.

(7) Building can be broadly divided into two components sub-structure and _____.

(8) Lime is obtained from _____.

(9) Define :

(a) Rubble Masonry

(b) Ashlar Masonry

2 Answer the following : (any **TWO**) **12**

(1) Explain isolated foundation.

(2) Explain classification of arches based upon shape of arch.

(3) Enlist types of mortars and discuss mortars based on binding material.

3 Sketch neatly and label only : (any **FIVE**) **20**

(1) Modular brick with dimensions and components.

(2) Rat trap bond.

(3) Reinforced brick lintel.

(4) Single brick thick Single Flemish wall in plan and elevation.

(5) Horse shoe Arch with all components.

(6) Random rubble coursed masonry.

(7) Raft foundation.

4 Explain in detail with appropriate sketches : (any **TWO**) **18**

(1) Explain various construction stages for arches.

(2) Illustrate various types of Lintels based on materials.

(3) What is substructure and supertructure? Explain with section components of substructure and super structure.
