

7.12.9

**B.Arch. Part-I Semester Examinations 2009-10**  
**Bengal Engineering and Science University, Shibpur**  
**Department of Architecture, Town & Regional Planning**

**Materials & Methods of Construction (AR 102)**

**Full Marks: 70**

**Time: 3 hrs**

*Answer all questions.*

- Q1. Draw the following: 3x6=18
- (i) Alternative layer of brick wall 250mm thick laid in English Bond.
  - (ii) Alternative layer of Heading and Stretching bond.
  - (iii) Random rubble masonry uncoursed and built to courses.
- Q2. Give reasons for the following: 6x2=12
- (i) Bricks are to be soaked in water before use.
  - (ii) Use of bats to be avoided.
  - (iii) Any horizontal projection should be provided with drip course.
  - (iv) Parapet at roof level is must even if there is no access at roof level.
  - (v) Brick earth should be free from lime nodules.
  - (vi) Stones to be laid on natural beds only.
- Q3. a) Classify building stone geologically. Give examples and availability in India. 3
- b) Give reasons for unsuitability of blasting for quarrying building stone. 3
- c) State the defects of stones and measures required. 14
- OR**
- Illustrate with sketches the structure of timber. State the defects of timber commonly available with the measures to be taken. 20
- Q4. (a) Explain with sketches the following terminologies: 5 x 2
- i) Closer; ii) Quoin Header; iii) Tothing; iv) Lap & bed joint; v) Bats.
- (b) Discuss about suitability of various ferrous and nonferrous metals in building industry. 10