

**B. Arch-1<sup>st</sup> -Arch.**  
**Building Materials -1**

Full Marks: 70                      Time: 3 Hours

Answer any **six** questions including Q. No. 1 which is compulsory  
*The figures in the right-hand margin indicate marks*

1/ Answer all questions.

[ 2×10]

- a) Define natural bed of a stone.
- b) State the harmful ingredients in brick earth.
- c) Explain the composition of ordinary cement.
- d) Define consistency of cement.
- e) What are the uses of mortar?
- f) Define workability of concrete.
- g) What is meant by seasoning of timber?
- h) State the basic difference between rubble masonry and ashlar masonry.
- i) Explain curing of concrete.
- j) What are various types iron used in construction work.

2. (a) What are the laboratory tests of cement? Describe any two of them. [4]

(b) What are the qualities of a good building stone? Describe them. [6]

3. (a) Describe in detail about classification and uses of bricks. [5]

(b) Describe various types of bonding used in brickwork. [5]

4. (a) What are the various methods of proportioning of concrete? [5]

(b) Enumerate various use of timber. [5]

5. (a) Enumerate the properties and uses of wrought-iron. [5]

(b) Describe about the various types and uses of steel. [5]

6. (a) What are the various types mortar used in construction work? [4]

(b) Describe in detailed about classification and uses of Lime? [6]

7. (a) Compare brickwork with stonework. [5]

(b) What are the various types of rubble masonry used? [5]

8. Write short notes on any two: [5×2]

(a) Quality control of concrete

(b) Flemish Bond

(c) Ashlar masonry

(d) Geological classification of rocks