

Reg. No. ....

(2 pages)

K 6168

Name .....

**THIRD SEMESTER B.Arch. DEGREE EXAMINATION, MAY / JUNE 2005**

**Paper—BUILDING MATERIALS & CONSTRUCTION—II**

**(2003 Scheme)**

Time : Four Hours

Maximum : 100 Marks

**Illustrate the answers with sketches wherever possible**

**Part A**

I. Write short notes on any five of the following :—

- (i) Bearing capacity of soil.
- (ii) Permeability.
- (iii) Footing.
- (iv) Cement.
- (v) Steel channels.
- (vi) Hinges.
- (vii) Piles.

(5 × 3 = 15 marks)

2. a) Explain theory of bearing capacity of soil for shallow foundations.

*Or*

b) Explain the compaction test to determine the moisture density relationship of a soil sample.

(15 marks)

3. a) Draw typical sketches of simple square and circular footings for isolated column and explain.

*Or*

b) Draw typical sketches of sections of shallow foundations on expansive soils. Explain the functions of special provisions made in each case.

(15 marks)

4. a) Explain the field tests for cement.

*Or*

b) Explain the various types of hinges used for doors with sketches.

(15 marks)

Turn over

5. **DRAWING.**

Draw the Plan, elevation and section details of steel window of width 1.80 metre and height 1.50metre.

(20 marks)

6. Draw Plan and sectional details of a combined footing connecting two columns of size 400mm × 400mm and 450mm × 450mm spaced at 2.50metre centres.

(20 marks)