

Total No. of Questions : 5] [Total No. of Printed Pages : 3

Roll No.

CE-404(N)

B. E. (Fourth Semester) EXAMINATION, June, 2010

(New Scheme)

(Civil Engg. Branch)

CONSTRUCTION MATERIALS AND TECHNIQUES

[CE-404(N)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt all the five questions.

1. (a) What are the functions of seasoning of timber ?
Describe methods for seasoning of timber. 10
- (b) Describe the qualities of a good brick. 10

Or

- (a) Enumerate the laboratory tests of stone. Describe any
one in detail. 10
 - (b) Write short notes on the following : 10
 - (i) Fly Ash Brick
 - (ii) Steel Shuttering
2. (a) What is fly ash ? What are its sources and uses ?
Describe the utility of fly ash in civil engineering
building materials. 10
 - (b) What are the requirements of DPC material ? 5

[2]

CE-404(N)

- (c) What are the advantages and disadvantages of stabilized mud blocks ? 5

Or

- (a) Write short notes on the following : 10

- (i) Use of fly ash in concrete.
(ii) Use of PVC material in building.

- (b) Enumerate the agricultural and industrial waste, which can be used as building material. 5

- (c) What are the requirements of good flooring material ? 5

3. (a) What is the principle of raft foundation ? Draw its sketch. Where is it useful ? 10

- (b) What is underreamed pile ? What is its application ? Draw the neat sketch of underreamed pile . 10

Or

- (a) What is the classification of foundation ? Describe well foundation in detail. 10

- (b) Write short notes on the following : 10

- (i) Soil stabilisation
(ii) Bearing capacity of soil
(iii) Damp proof course

4. (a) Draw plan of alternate course of $1\frac{1}{2}$ brick wall with English bond. 10

- (b) Write short notes on the following : 10

- (i) Cavity wall
(ii) Hollow concrete block

Or

- (a) What are the merits and demerits of brick masonry

[3]

- (b) What are the common defects in construction of wall ? 5
(c) What is the difference between plastering and painting ? 5
5. (a) Write short notes on the following :
- (i) Low cost housing 5
(ii) Drainage arrangement of building 5
- (b) Describe mosaic floor in details. 10

Or

- (a) Draw neat sketch of lean to roof. 5
(b) Write short notes on any *two* of the following : 15
- (i) Ferrocement Techniques
(ii) Thermal Insulation of Building
(iii) Timber flooring