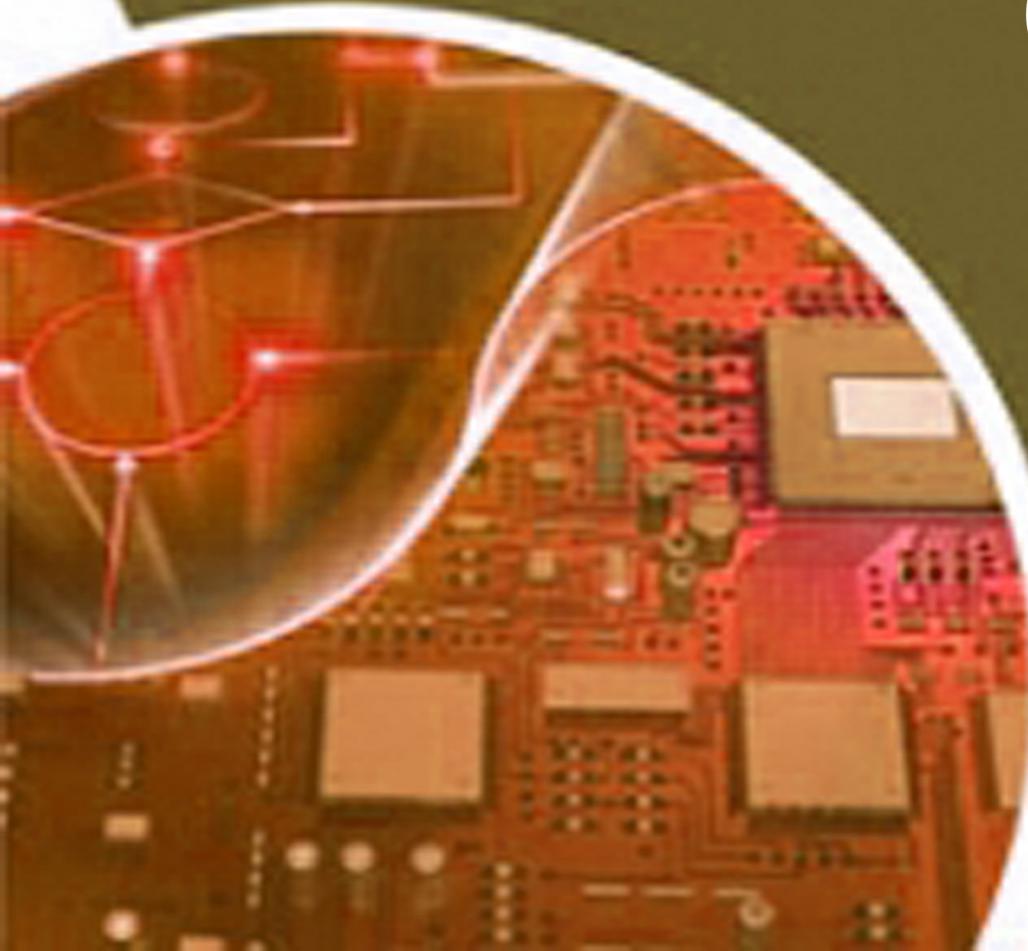


PUNE UNIVERSITY
3rd & 4th
Semester
QUESTION PAPERS

Bachelor of Engineering

Civil Engineering
(2009-2014)



Total No. of Questions—**12**]

[Total No. of Printed Pages—**4+2**

Seat No.	
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[4262]-102

S.E. (Civil) (I. Sem.) EXAMINATION, 2012

BUILDING MATERIALS AND CONSTRUCTION

(2008 PATTERN)

Time : Three Hours

Maximum Marks : 100

- N.B. :—** (i) Answer *three* questions from Section I and *three* questions from Section II.
- (ii) Answers to the two Sections should be written in separate answer-books.
- (iii) Neat diagrams must be drawn wherever necessary.
- (iv) Figures to the right indicate full marks.
- (v) Assume suitable data, if necessary.

SECTION I

1. (a) Define building. Explain the functions of foundation. [6]

P.T.O.

(b) Explain the following with sketches :

(i) Plinth

(ii) Throating

(iii) Q.C.

[6]

(c) Write short notes on Flemish bond.

[6]

Or

2. (a) Compare strap footing and mat foundation. [6]

(b) Explain the following with sketches :

(i) Friction pile

(ii) Header stone

(iii) Toothing.

[6]

(c) Write short note on English bond. [6]

3. (a) Explain functions of cavity wall in residential building. [4]

(b) Compare hollow concrete blocks and solid concrete blocks. Consider size, shape and laying. [6]

(c) Define formwork. Draw the sketch of formwork for footing in residential building. [6]

Or

4. (a) Write down technical advantages of block masonry. [4]

(b) Write short notes on :

(i) Reinforced brick column

(ii) Cavity wall. [6]

(c) Write down ideal requirements of formwork used for residential building. [6]

5. (a) State various flooring tiles available in market. Write down their advantages only (any four). [6]

(b) Write short note on queen-post truss. [6]

(c) Explain the following with neat sketches :

(i) Ridge cover

(ii) Valley. [4]

Or

6. (a) Explain the detailed procedure of construction of marble tiles flooring. Give construction sketch also. [6]

(b) Explain detailed procedure of fixing A. C. Sheet with round pipes in residential building. [6]

(c) Explain the following with sketches :

(i) Hip

(ii) Gable.

[4]

SECTION II

7. (a) Draw a neat labelled sketch of panelled door. Show different parts of the same with dimensions. [6]
- (b) Enlist various types of windows and explain any *one* in detail. [6]
- (c) Enlist types of plastering and explain any *one* in detail. [6]

Or

8. (a) Draw a neat labelled sketch of double-shutter window. Show different parts of the same with dimensions. [6]
- (b) Define Arch. State types of arches and explain any *one* in detail. [6]
- (c) Explain any *one* type of scaffolding in detail. [6]
9. (a) Discuss various considerations that are made in planning of staircases. Illustrate any *two* types of staircases generally used, indicating the suitability for specific use. [6]

(b) Explain various methods to be adopted on site for prevention of accidents. [6]

(c) Explain the terms strutting and shoring. [4]

Or

10. (a) Enlist different types of staircases. Explain any *one* in detail with an appropriate figure. [6]

(b) What are the limitations on different types of staircases in regard to their rise and tread ? How would you choose them for :

(i) House

(ii) School

(iii) Commercial complex

(iv) Hospital. [6]

(c) Explain the term 'shoring'. State important points to be observed in case of raking shores. [4]

11. (a) Write short notes on :

(i) Ceramic products used in construction

(ii) Use of gypsum in construction. [6]

(b) Explain the term ‘seasoning of timber’ and explain any *one* method of the same in detail. [6]

(c) Write short note on eco-friendly materials. [4]

Or

12. (a) State different types of defects in timber and explain any *one* in detail. [6]

(b) Write down the engineering properties of :

(i) Plastic

(ii) Ferro-crete. [6]

(c) Explain the importance of using eco-friendly materials in construction. Explain any *one* material in detail. [4]

Total No. of Questions—**12**]

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[4062]-102

S.E. (Civil) (I Sem.) EXAMINATION, 2011

BUILDING MATERIALS AND CONSTRUCTION

(2008 PATTERN)

Time : Three Hours

Maximum Marks : 100

- N.B. :**— (i) Answer *three* questions from Section I and *three* questions from Section II.
- (ii) Answers to the two Sections should be written in separate answer-books.
- (iii) Neat diagrams must be drawn wherever necessary.
- (iv) Figures to the right indicate full marks.
- (v) Your answers will be valued as a whole.
- (vi) Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- (vii) Assume suitable data, if necessary.

SECTION I

1. (a) Comment, if no foundation is provided to the building. [4]
- (b) Define Plinth. Explain step by step procedure of plinth filling with sketch. [6]

(c) Explain the following terms with sketches : [6]

(i) Queen Closer

(ii) Corbel

(iii) Through Stone

(iv) Toothing.

Or

2. (a) Comment, if foundation is provided above the ground level. [4]

(b) Differentiate between shallow foundation and deep foundation with definition sketches. [6]

(c) State functions of Bond in masonry. Explain Flemish Bond. [6]

3. (a) Explain laying of concrete block with sketch. [4]

(b) Write short notes on the following : [6]

(i) Reinforced Brick Column

(ii) Cavity Wall.

(c) Define formwork. State the essential requirements of form-work to be provided for bridge construction. [6]

Or

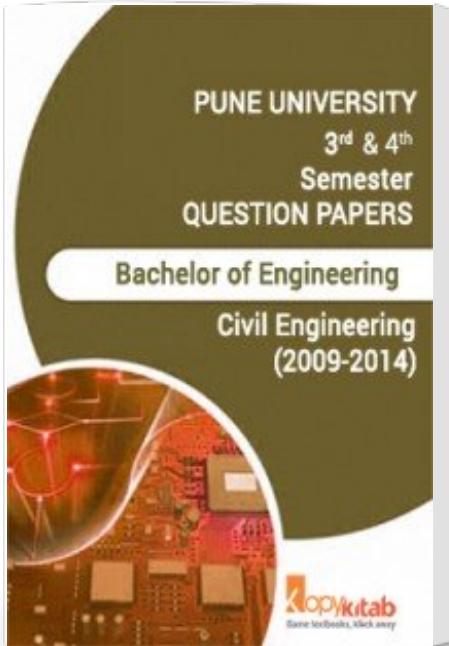
4. (a) Define hollow concrete block. Explain detailed procedure of manufacturing of concrete blocks. [6]
- (b) Explain different combinations of composite masonry with sketches. [4]
- (c) Draw the sketch of beam formwork. Give names of maximum parts, also mention their sizes. [6]
5. (a) Explain with a neat sketch the construction of concrete flooring. [6]
- (b) Explain with neat sketches the following terms : [6]
- (i) Skirting
 - (ii) Dado
 - (iii) Bed Plates
 - (iv) Gable end.
- (c) Write a short note on Lean to Roof. [6]

Or

6. (a) State the different brand names of flooring tiles available in market. Also state their sizes available in market. [6]
- (b) Explain step by step procedure of fixing A.C. sheet with sketches. [6]

PUNE UNIVERSITY QUESTION PAPERS

2nd Year Civil Engineering (2009-2014)



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