



# COLLEGE OF ENGINEERING, PUNE

(An Autonomous Institute of Government of Maharashtra.)  
SHIVAJI NAGAR, PUNE - 411 005

## END Semester Examination

### BP-09001- (BP-09002)Materials and Principles of Construction

Course: B.Tech

Branch: Planning

Semester: Sem I

Year: 2014-2015

Max.Marks:60

Duration: 3 Hours Time:- 10 am - 1 pm

Date:21/11/2014

#### Instructions:

MIS No.

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1. Figures to the right indicate the full marks.
2. Mobile phones and programmable calculators are strictly prohibited.
3. Writing anything on question paper is not allowed.
4. Exchange/Sharing of anything like stationery, calculator is not allowed.
5. Assume suitable data if necessary.
6. Write your MIS Number on Question Paper
7. **Attempt any SIX Questions**

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- Q.1 a) What is purpose of providing extra thickness to wall? write note on that structure (4Marks)
- b) Define foundation? Explain in detail various types of shallow foundation? (6Marks)
- Q.2 a) What are requirements of good brick? (3Marks)
- b) Define Well Foundation with sketch? (3Marks)
- c) Explain with sketches (Any two ) (4Marks)
- 1) King Closer 2) Bat 3) Super structure
- Q.3a) Which Bond is giving more pleasing appearance in brick masonry? Explain with sketch about that bond. (5Marks)
- b) Write a short note on (5Marks)
- 1) Header Bond 2) Types of Stones
- Q.4 a) If you are proposing residential flat of two bed rooms, hall and kitchen, where would you locate doors, and Define paneled door (4Marks)

- b) A new township is proposed for the population of 10,500. To what capacity the water distribution system will be designed for this population. Also how much sewerage will be generated per day from township (answer in LPCD) and Draw the section of water supply and sewer line (6Marks)
- Q.5a) What is the name of window projecting outward from the external walls? Explain about that window? (4Marks)
- b) Draw the cross section of highway. (2Marks)
- c) What are the types of concrete? Define any one of them (2Marks)
- d) Explain with sketch sill and lintel (2Marks)
- Q.6a) Write a short note on (6Marks)
- 1) Retaining walls 2) Culverts
- b) Write down the procedure of construction of road. (3Marks)
- c) What are the types of finishing material used for wood? (1Marks)
- Q.7a) What all points have to be kept in mind while deciding the location of staircase in residential building? Define circular staircase (3Marks)
- b) Draw the symbols for (2Marks)
- 1) sliding door 2) Glass
- c) Define cement? List down the types of cement? (3Marks)
- d) what are the use of timber as construction material (2Marks)