


FACULTY OF ENGINEERING**B.E. 2/4 (Civil) I Semester (New) (Main) Examination, December 2011****ENGINEERING MATERIALS AND CONSTRUCTION**

Time: 3 Hours]

[Max. Marks: 75

Note: Answer all questions from Part A. Answer any five questions from Part B.**PART – A****(25 Marks)**

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1. List out different uses of stones as building materials. 3
 2. Differentiate between load bearing and non load bearing blocks. 2
 3. What are the raw materials required for the manufacture of cement ? 2
 4. Define bulking of sand. 2
 5. How many types of mortars are generally used in buildings ? 2
 6. List out the common defects in timber. 3
 7. Write a short note on recycled material. 3
 8. Enumerate the essential characteristics of an ideal flooring to be used for a class room of a college. 3
 9. Draw a neat sketch of a framework for a beam construction. 3
 10. How do you plaster an old surface ? 2

PART – B**(50 Marks)**

11. What do you understand by the term dressing and polishing of stone ? Describe the different methods of dressing stones. 10
12. a) What are the different stages of the manufacture of bricks ? 4
- b) Describe in brief the burning of bricks in Bull-Trench Kiln. Illustrate your answer with the help of a neat sketch. 6

13. a) Describe the working of a rotary kiln with the help of neat sketch. 6
b) What are the standard specification of portland cement ? 4
14. Explain in detail the various tests to be conducted on coarse aggregates. 10
15. What do you understand by the 'term' workability and consistency of concrete ? What are the various tests to measure the workability of concrete ? 10
16. What do you understand by the term seasoning of timber ? Explain in detail various methods of seasoning timber. 10
17. a) Draw the cross section of an arch and name its parts. 4
b) Define scaffolding. What are the different types of scaffolding ? Explain with the help of neat diagrams. 6