

FACULTY OF ENGINEERING**B.E. 2/4 (Civil) I-Semester (Main) Examination, November / December 2012****Subject : Engineering Materials and Construction****Time : 3 Hours****Max. Marks: 75****Note: Answer all questions of Part - A and answer any five questions from Part-B.****PART – A (25 Marks)**

1. List out the various uses of stones as a building material. (3)
2. State any four requirement of good bricks. (3)
3. Differentiate load bearing and non-load bearing blocks. (2)
4. What is bulking of sand? (3)
5. Define the term dressing of stones. (2)
6. Write a short note on recycled aggregates. (3)
7. Draw the flow chart for manufacturing process of cement. (2)
8. What do you mean by smart materials? (2)
9. What is seasoning of timber? (2)
10. List out the various tests on aggregates. (3)

PART – B (5x10=50 Marks)

11. Explain in detail the various classification of stones. Discuss the various characteristics of building stones. (10)
- 12.(a) How are bricks classified? How do they differ in compressive strength? (4)
(b) Explain in detail the burning of bricks in Bull-Trench kiln. (6)
- 13.(a) Explain the construction process of concrete flooring and mosaic flooring. (6)
(b) Differentiate between Portland cement and white cement. (4)
14. What is Varnish ? Discuss in detail the various types of Varnishes and its applications. (10)
15. Define water cement Ratio. Discuss the importance of water cement ratio in preparing concrete. (10)
16. Explain with the help of neat sketches different types of Arches. (10)
17. Write short note on the following: (10)
 - (a) Importance of scaffolding
 - (b) Light weight aggregate
 - (c) Batching of materials in the manufacturing process of concrete
 - (d) Types of reinforcement