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INTERNATIONAL CENTRE FOR APPLIED SCIENCES
(Manipal University)
II SEMESTER B.S. DEGREE EXAMINATION – NOV. / DEC. 2016
SUBJECT: BUILDING CONSTRUCTION -1 (CE I22)
(BRANCH: CIVIL & ARCHITECTURE)
Monday, 12 December 2016

Time: 3 Hours

Max. Marks: 100

- ✓ **Answer ANY FIVE FULL Questions.**
- ✓ **Assume missing data, if any, suitably and indicate them clearly.**
- ✓ **Draw sketches wherever necessary**

- 1A. Explain the different metamorphism process of rocks due to heat and pressure.
- 1B. What are the chief ingredients of a good brick earth? State the harmful ingredients of brick earth.
- 1C. What are fire bricks or refractory bricks? Explain various types of fire bricks
- (6+7+7)**
- 2A. Explain the properties and uses of rubber.
- 2B. Explain in detail, “Cement Mortar”, Lime mortar and Cement Lime mortar
- 2C. Mention the merit and de-merits of natural seasoning in a timber.
- (7+6+7)**
- 3A. Explain defects due to conversion and fungi in timber.
- 3B. Write short notes on : i) Allahabad tiles ii) Pot tiles
- 3C. Explain with a neat sketch the various parts of a timber cross section.
- (8+6+6)**
- 4A. Explain the various types of ply wood and its uses.
- 4B. Explain in detail, the various properties and uses of bitumen.
- 4C. Write a short note on common glass and its uses
- (7+7+6)**
- 5A Write short notes on:
- i) Ingredients of paint
 - ii) Any four types of varnishes
- 5B. What is meant by slaking of lime? Explain methods of slaking to paste and slaking to powder
- 5C. Explain what is meant by gypsum plaster? Mention its properties and uses
- (8+6+6)**
- 6A. State and explain various important properties and uses of plastics.
- 6B Write explanatory note on “Use of sea water for mixing concrete”.
- 6C. Discuss various advantages and disadvantages of the following for their use in concrete
- a) Angular aggregates b) Rounded aggregates c) Smooth textured aggregates d) rough textured aggregates
- (6+6+8)**

7A. Discuss various factors affecting the workability of fresh concrete

7B. What is meant by bulking of aggregates? Explain its significance and also how it is determined?

7C. Explain what is light weight concrete? Explain also its significance.

(6+7+7)

8A. Explain the non-destructive testing methods on hardened concrete

8B. Explain in detail the “Compression test” conducted on hardened concrete.

8C. What are the various precautions necessary in the transportation and placing of concrete?

(8+6+6)

