

M. ARCH. SEM-I (SUSTAINABLE ARCHITECTURE)
(2014 COURSE) (CBCS) : WINTER - 2017
SUBJECT: SUSTAINABLE MATERIALS AND
TECHNOLOGY

Day: **Monday**
Date: **11/12/2017**

W-2017-3261

Time: **10.00 A.M. TO 12.00 NOON**
Max Marks: 60

N.B.

- 1) Solve any **THREE** questions from each section.
- 2) Answers to **TWO** sections should be written in **SEPARATE** answer books.
- 3) All questions carry 10 marks.

SECTION-I

- Q.1** Define & describe following terms: (10)
- a) Recycled construction materials
 - b) Health impacts of building materials
 - c) LCA- life cycle analysis
 - d) Embodied energy in material
 - e) Wood as a traditional material
- Q.2** Write short notes on the following: (10)
- a) Bamboo as a sustainable material
 - b) Wool as insulation
- Q.3** Describe the following: (10)
- a) What is a life cycle cost analysis?
 - b) Future of sustainable materials.
- Q.4** Difference between contemporary and traditional material. (10)
- Q.5** Discuss various structural and construction aspects of rat trap bond. (10)

SECTION-II

- Q.6** Define & describe following terms: (10)
- a) Eco- Boards
 - b) Cavity wall
 - c) Ceramics in construction
 - d) Wattle & daub
 - e) Earth bag construction
- Q.7** Write short notes on the following: (10)
- a) Phase change materials
 - b) Explain water based paints
- Q.8** Explain in brief: (10)
- a) LCA of ECO- link boards
 - b) Light weight Concrete
- Q.9** Use of glass as a contemporary material and use of it in construction. (10)
- Q.10** Use of gypsum in building construction its application , properties, characteristics (10)

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