

M. Arch. Sem-I (Sustainable Architecture) (2014 Course) (CBCS) :
WINTER - 2018

SUBJECT-SUSTAINABLE MATERIALS AND TECHNOLOGY

Day: : Saturday
Date: 24/11/2018

W-2018-3469

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

N.B.:

- 1) Solve any **THREE** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-I

- Q.1** Define the Following: **(10)**
- a) Reclaimed materials
 - b) Jute
 - c) Compressed earth blocks
 - d) Wood as insulation
 - e) Future of sustainable materials
- Q.2** Describe the following: **(10)**
- a) LCCA
 - b) Adobe as a material
- Q.3** Write short notes on: **(10)**
- a) Embodied energy of sustainable materials
 - b) LCA of Bamboo
- Q.4** 3 types of stones and their thermal & building performance **(10)**
- Q.5** Which are better natural or recycled materials , comparison between reused and recycled materials **(10)**

SECTION-II

- Q.6** Define the following: **(10)**
- a) Precast concrete
 - b) Damplon sheets
 - c) Earth Berming
 - d) PVC
 - e) Phase change materials
- Q.7** Define the following: **(10)**
- a) Advantaged and Disadvantages of Hempcrete
 - b) Roof ponding
- Q.8** Write short notes on: **(10)**
- a) Mycelium
 - b) LCA & LCCA of steel
- Q.9** Explain Trombe wall in detail with sketches and its thermal performance **(10)**
- Q.10** Explain green roof in detail and its advantages and disadvantages **(10)**