

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
End Semester Examination – DECEMBER - 2018

Course: M. Arch (Environmental Architecture)

Semester:- 1

Subject Name with Subject Code: Green Building Materials and Technology (MAREA10100003)

Date: - 07/12/2018

Marks: 60

Duration: 3 Hr.

Instructions: - 1. The First question is compulsory
2. Answer any FOUR out of the remaining.

Q. No.1:- SAQ

20 Marks

A. Write in pairs, Conventional vs. Green, building materials for the following building components: (5 marks)

- i. Facades
- ii. Window glazing
- iii. Roofs
- iv. Foundations
- v. Interior partition

B. Define the following terms: (any 5)

(10 marks)

- i. LCA
- ii. EIA
- iii. Embodied energy
- iv. Green building
- v. BIM software
- vi. Reduce-reuse-recycle policy
- vii. VOC

C. Match the following:

(5 marks)

- | | |
|-------------------------|--|
| i. Embodied Energy | cradle to grave |
| ii. Life Cycle analysis | energy output/energy input% |
| iii. Green building | cool roofs |
| iv. Energy efficiency | eco-friendly, energy efficient and sustainable |
| v. Green technique | MJ/Kg |

Q. No. 2:- Write short notes on any 2:

10 Marks

- A. Goals and scope in LCA process
- B. Ferrocement
- C. Eco boards
- D. Environmental Impact assessment

Q. No.3:- Write in detail about Embodied energy and Life cycle analysis in the Green building industry.

10 Marks

Q. No. 4:- While doing an interior designing project, your client has given you the freedom and directive of strictly using green materials. Describe all the components in the interiors designing project you would consider and which green material you would use thereof?

10 Marks

Q. No. 5:- What are the processes involved in Environmental Impact Assessment. Write in detail about them. **10 Marks**

Q. No. 6:- Write in detail about curtain walls and prefabrication as green options to conventional walling systems. Also write about materials used in these techniques. **10 Marks**

Q. No. 7:- How are green building materials and green building technology connected to each other. Explain with examples with respect to any two building components. **10 Marks**

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