

No. of Printed Pages : 03

Roll No.

BB-267

Master of Architecture

EXAMINATION, Dec. 2018

(Second Semester)

(Re-appear Only)

(SUSTAINABLE ARCHITECTURE)

MARC616

Technologies for Energy Efficient Buildings

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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P.T.O.

Unit I

1. Explain various types of cooling systems. Differentiate between direct evaporative cooling and indirect evaporative cooling giving merits and demerits of each.
2. Differentiate between active and passive approaches to solar space heating with example. Discuss energy sources and their heat transfer mechanism. Also show the efficiency of various fuels for heating building.

Unit II

3. Define the air-conditioning of AC system. Describe the types of AC system, which can be used to create comfortable environment inside any building ?
4. Explain the application of refrigeration systems. Explain three types of evaporators and their use. How can an evaporator be tested for efficiency ?

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Unit III

5. What are the different fixtures and faucets used in a domestic plumbing design ? Describe their uses and functioning. List how many of each type of plumbing fixture are required for an office building occupied by 55 women and 50 men.
6. Explain the general principle to be considered to minimize the losses in power distribution. Explain three types of dimmers which help in lighting control.

Unit IV

7. Write a detailed note on Types and Importance of Vertical mechanical mode of Transportation in Modern Buildings.
8. What do you know about vertical circulation in buildings ? Describe various means and methods of climbing up. Also explain the grouping of lifts and planning considerations for vertical circulation.

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