

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

## MAKEUP EXAMINATION- APRIL -2018

## M.Tech IV Semester

COURSE CODE: 10M13CE334

MAX. MARKS: 25

COURSE NAME: Principles of Affordable Housing

COURSE CREDITS: 03

MAX. TIME: 1.5 HRS

---

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. All questions carry equal marks.*

---

Q1. "Urban Housing in India presents a very complicated picture". Justify the statement by addressing the issue of urban housing and the measures taken by the government.

Q2. Define "thermal indices". Discuss the different types of thermal indices in detail.

Q3. "In winter, and particularly in colder climates, the sun can become a useful source of heat, and its inclusion or exclusion must therefore be given careful consideration". In order to optimize the environmental condition given in the statement, what are the solar design steps that should be followed in a building?

Q4. Determine the required ventilation rate and number of air changes for the following data, Volume of room,  $V = 1962$  cubic feet, Indoor temperature,  $T_1 = 85^\circ \text{F}$ , Outdoor temperature,  $T_2 = 79^\circ \text{F}$ , Heat Load to be removed,  $Q = 15,000 \text{ BTU/Hr}$ .

Q5. Describe the planning and zoning tools for developing the affordable housing in India.