

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

END TERM (SUMMER SEMESTER EXAMINATION) July 2017

M.Tech 4th Semester

COURSE CODE: 10M13CE334

MAX. MARKS: 50

COURSE NAME: Principles of Affordable Housing

COURSE CREDITS: 03

MAX. TIME: 2 HRS

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

1. A 5 m X 5 m and 2.5 m high office is located on an intermediate floor of a building, only exposed wall facing south, all other walls adjoin rooms kept at the same temperature: $T_i = 20$ °C. Outside temperature $T_o = 0$ °C. Ventilation rate is three air changes per hour, three 100 W bulbs are in continuous use to light the rear part of building used by four persons. The exposed 5 m X 2.5 m wall consists of two single glazed window, 1.5 m X 1.5 m. $U = 1.35$ W/m²/°C. Calculate the total heat loss. (10)
2. Discuss the effect of cavity over heat flow or building insulation. What are the key objectives of thermal control in a building? How can we create affordable housing? (10)
3. What types of affordable housing exist? What are the facts about affordable housing?(10)
4. Define the term affordable housing and discuss the term affordable housing in India. What is the current status of Land Use pattern for housing in India? What are the steps taken by government in planning of urban land use? (10)
5. Discuss the policy issues in affordable housing in India. Discuss the urban housing scenario in India. What are the issues affecting availability and affordability in housing? (10)