

MANIPAL ACADEMY OF HIGHER EDUCATION
FOURTH SEMESTER B. ARCH. DEGREE EXAMINATION – APRIL 2018

SUBJECT: CLIMATOLOGY (ARC-214)
(2010 SCHEME)

Monday, April 23, 2018

Time: 10:00 - 13:00 Hrs.

Max. Marks: 50

- ✍ **Answer any FIVE questions.**
✍ **Answer all parts of a question.**

- 1A. Differentiate the terms 'macroclimate' and 'microclimate'.
1B. What are the factors causing deviations of the urban climate from the regional climate?
1C. What are the characteristics of warm-humid climate?
(3½+3½+3 = 10 marks)

- 2A. What is meant by 'human thermal comfort'?
2B. What are the environmental factors that determine human thermal comfort?
2C. What is meant by Corrected Effective Temperature?
(4+4+2 = 10 marks)

3. **Write short notes on:**
3A. Temperature inversion
3B. Equinox Days
3C. Surface conductance
3D. U-Value
(2½ marks × 4 = 10 marks)

- 4A. What are the three different functions of ventilation? Elaborate on each function.
4B. How does position of openings effect ventilation in a room? Explain.
(7+3 = 10 marks)

- 5A. What is daylight factor?
5B. Explain three essential components of daylight factor.
5C. What is the application of daylight factor?
(2+6+2 = 10 marks)

6. **Explain the climatic design guidelines for:**
6A. Warm humid climates
6B. Hot dry climate
(5+5 = 10 marks)

