

MANIPAL ACADEMY OF HIGHER EDUCATION**THIRD/FOURTH SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2018****SUBJECT: ARC-14-211 : PRINCIPLES OF CLIMATIC DESIGN (2014 SCHEME)**
ARC-214 : CLIMATOLOGY (2010 SCHEME)

Saturday, January 27, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 50

- ✗ **Answer any FIVE FULL questions.**
- ✗ **Support your answers with sketches wherever required.**

- 1A. Explain the various elements of climate in detail.
- 1B. Explain the design considerations for cold climate.

(5+5 = 10 marks)

2. **Explain the following:**

- 2A. Types of Trade-winds
- 2B. Sea breeze and Land breeze
- 2C. Kata Thermometer
- 2D. Coriolis force

(2½ marks × 4 = 10 marks)

3. List the classification of Tropical climates. Explain the characteristics of any two types.

(2+8 = 10 marks)

- 4A. Explain the climatic variables which influence thermal comfort using bioclimatic chart.
- 4B. What is meant by Solar Azimuth Angle and Solar Altitude Angle? Explain with sketches.

(5+5 = 10 marks)

5. **Write short notes on:**

- 5A. Water Wall
- 5B. Stack effect
- 5C. Earth Sheltering
- 5D. Courtyard

(2½ mark × 4 = 10 marks)

- 6A. What is Ecotect? What are the features of Ecotect?
- 6B. What are the advantages of Ecotect software?

(5+5 = 10 marks)

