

Name of Student: .....

Roll No: .....



## TKM COLLEGE OF ENGINEERING, KOLLAM-5

### Sample Question Paper (2015-16)

#### DETAILS OF THE QUESTION PAPER

Programme: B. Arch.

Semester: 5 (June 2015 to Oct 2015)

Course Code and Name: 13AR1507

1. This examination has 8 Questions in Part A and 8 questions in Part B.
2. Answer **ALL** questions from PART A and **Any Two Full** questions from PART B
3. This examination contributes 100% of the total University mark of this subject.
4. Duration of Exam: 3 hours
5. Maximum Marks: 100

*General Instructions: 1. Answer ALL questions from Part A  
2. Answer any TWO questions from Part B*

#### **PART A**

- I.
  - (a) Enumerate the avenues of impact of buildings on global environment
  - (b) How does volume-to-surface ratio affect energy efficiency of a building?
  - (c) List the different psychometric properties
  - (d) On a rough sketch of the psychrometric chart, depict the cooling and dehumidification process
  - (e) What are the different types of Air-Conditioning?
  - (f) Identify the factors affecting Cooling load Calculation
  - (g) How does the location influence reduction of heat gain
  - (h) Itemise the conditions for economy and energy saving

(5 x 8 Marks)

**PART B (15 Marks each)**

**Module I**

- II. Summarise Standard requirements of ventilation for different conditions of living.
- III. Outline the procedures for the control of quality, quantity, temperature & humidity of air

**Module II**

- IV. What is the application of Psychometric chart
- V. Sketch and identify the salient features of a Summer air conditioning system

**Module III**

- VI. List the Major equipments used in Air conditioning.
- VII. Describe with the help of sketches, the types of air conditioning compressors.

**Module IV**

- VIII. Sketch the Layout of supply and return air ducts for a typical installation.
- IX. Prepare a Schematic drawing showing the Air conditioning system of an office building