MANIPAL ACADEMY OF HIGHER EDUCATION

SEVENTH/EIGHTH SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2018

SUBJECT: ARC-14-411.1 - VASTUVIDYA (2014 SCHEME)
ARC-408.4 - TRADITIONAL ARCHITECTURE (2010 SCHEME)

Saturday, February 03, 2018

Time: 10:00 – 13:00 Hrs.   Max. Marks: 50

✍ **Answer any FIVE FULL questions.**

✍ **Give neat sketches wherever relevant. Assume any missing data appropriately.**

1A. Explain the measurement system of traditional architecture. How did it support modular co-ordination?

1B. How did "*veethi*" system effectively control set-back and ground- coverage? Explain for an 8×8 grid and 9×9 grid.

1C. Explain measurement system in traditional architecture.

(10 marks)

2A. Explain the procedure of determining cardinal directions in traditional construction. Also explain how the orientation of buildings and their perimeters made to hold a relation.

2B. Explain the concept of "*Vastupurushamandala*". How did it serve as an effective tool of design communication?

(6+4 = 10 marks)

3. Explain the step-by step procedure of arriving at plan layout for a *sabha* in a given plot.

(10 marks)

4. **Explain the following:**

4A. *Ajayuddhasandhi*

4B. *Gamana*

4C. *Trishala*

4D. Traditional gateways

(2½ marks × 4 = 10 marks)

5. Explain with example how climatic challenges addressed with local materials and technology of the times resulted in evolution of roof forms.

(10 marks)

6A. Sketch and explain the components of a traditional timber roof-frame.

6B. Analyze the building plan given below for its correctness as per *yoni* system of orientation. (Take 1*pada* = 24 cm)

(4+6 = 10 marks)
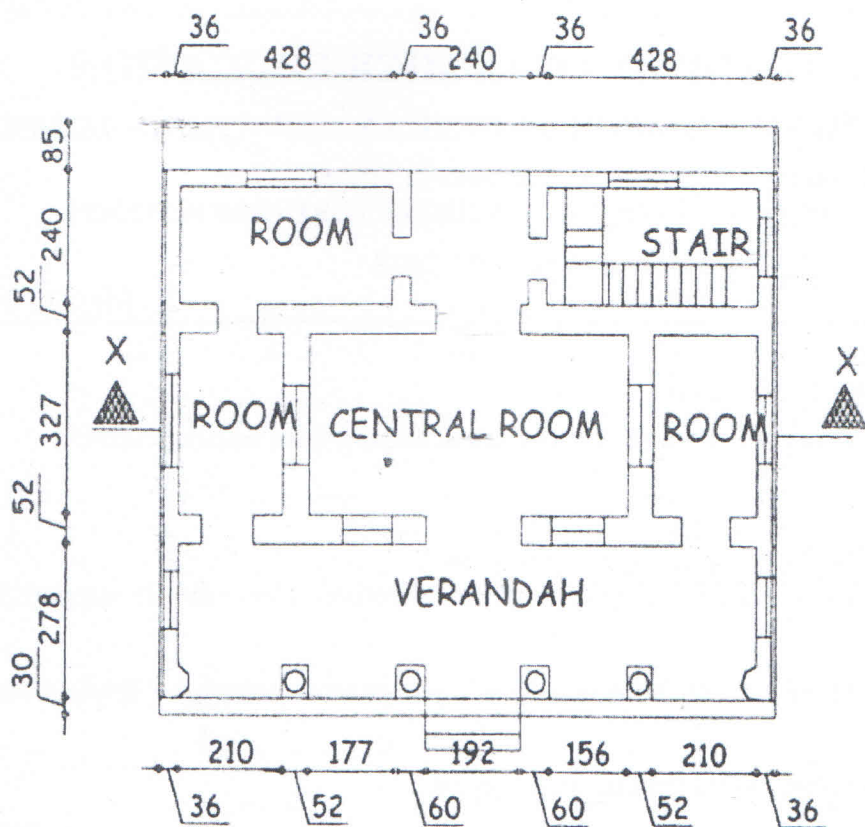
Note:

1. The house faces south.
2. All measurements given are in cm.
3. While estimating perimeter in the unit of "*pada*" round off to the higher value whatever may be the fraction beyond the whole figure.
4. Plinth projections of 30cm and 85 cm in the front and rear-side respectively need not be considered in perimeter estimation.