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MANIPAL UNIVERSITY

EIGHTH SEMESTER B. ARCH. DEGREE EXAMINATION - JULY 2017

SUBJECT: ELECTIVE II – TRADITIONAL ARCHITECTURE (ARC-408.4) (2010 SCHEME)

Thursday, July 13, 2017

Time: 10:00 - 13:00 Hrs.

Max. Marks: 50

- Answer any FIVE Full questions.
- Ø Give neat sketches wherever relevant. Assume any missing data appropriately.
- 1A. Explain the dimensional and measurement systems in traditional architecture.
- 1B. Explain the concept of *vastupurusha mandala*. How did it endure as an effective tool for design communication?

(5+5 = 10 marks)

- 2A. How was cardinal directions determined in traditional construction procedure? Also explain how the orientation of buildings and their perimeters made to hold a relation.
- 2B. Explain how the concept of "Vastupurushamandala" served 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. Gateways
- 4B. veethi system of planning
- 4C. trishala
- 4D. different types of Mandapa

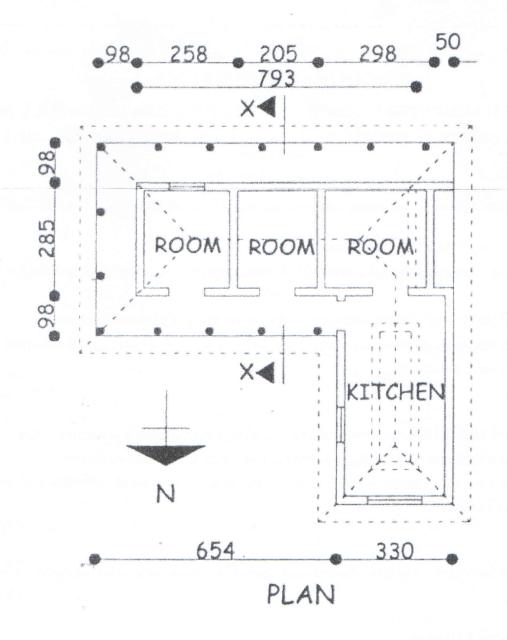
 $(2\frac{1}{2} \text{ marks} \times 4 = 10 \text{ marks})$

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. Explain the components of timber frame roofs (gabled and hipped) and justify how design prescriptions supported structural optimization.
- 6B. Check the building plan given below for its possible orientation as per *yoni* system of orientation. Compare orientation for the overall building plan as well as for the kitchen and a room. (Take 1*pada* = 24 cm)

(4+6 = 10 marks)



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