

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.

✍ 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

(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. 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 *yonis* system of orientation. Compare orientation for the overall building plan as well as for the kitchen and a room. (Take *1pada* = 24 cm)

(4+6 = 10 marks)

