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MANIPAL UNIVERSITY

THIRD SEMESTER M. ARCH. (URBAN DESIGN & DEVELOPMENT) DEGREE EXAMINATION – NOVEMBER 2017

SUBJECT: ARM 727 – ADVANCED URBAN TRANSPORTATION PLANNING & DESIGN (ELECTIVE - II)

Monday, November 13, 2017

Time: 10:00 - 13:00 Hrs.

Max. Marks: 50

- Answer any FIVE full questions.
- The answers should be supported with examples and sketches wherever necessary.
- 1. Elaborate any five types of survey carried out in transportation planning and design process with their utility.

 $(2 \text{ marks} \times 5 = 10 \text{ marks})$

2. Elaborate on importance of cycle tracks in present situation. What are the basic design considerations for cycle tracks in urban road?

 $(5 \text{ marks} \times 2 = 10 \text{ marks})$

3. Explain the purpose and objectives of Land Acquisition Act and elaborate on characteristics of this Act enacted in 1894, 1984 and 2013 respectively.

(10 marks)

- 4. Elaborate the following:
- 4A. User Characteristics for Pedestrian Infrastructure
- 4B. Interdependence of Urban Form and Transport system

(5+5 = 10 marks)

- 5. Write short notes on the following:
- 5A. Bus Rapid Transit System and Mono Rail
- 5B. Bus Priority Techniques
- 5C. Accessibility and Mobility

(4+4+2 = 10 marks)

- 6A. Differentiate between Road Signs and Road Markings with the help of examples.
- 6B. Elaborate on different types of Road Signs with examples.

(4+6 = 10 marks)