

**MANIPAL ACADEMY OF HIGHER EDUCATION****SEVENTH/NINTH SEMESTER B. ARCH. DEGREE EXAMINATION – NOVEMBER 2018****SUBJECT: ARC-14-401 - URBAN CONTEXT STUDIO (2014 SCHEME)  
ARC 501 – ARCH. & URBAN DESIGN STUDIO – II (2007 SCHEME)**Monday, November 12; Tuesday, November 13 and Wednesday, November 14, 2018  
(Monday 10:00 – 16:00; Tuesday (10:00 – 13:00 & 14:00 – 17:00); Wednesday (10:00 – 13:00 & 14:00 – 17:00))

Time: 18 Hrs. (in three days)

Max. Marks: 50

**READ THE FOLLOWING INSTRUCTIONS CAREFULLY.**

- ✗ The first sitting of six hours is continuous at the end of which the candidate shall submit the drawings as indicated. This submission will not be returned to the candidates, so they are advised to keep a copy of the first day's submission.
- ✗ No sheets will be allowed to be taken out of or into the examination hall.
- ✗ Major deviations from the design developed and submitted in the "first day's work" will not be accepted.
- ✗ The medium of presentation, i.e., pencil, ink etc. is left to the choice of the candidates.
- ✗ All drawings must be in proportion to the mentioned scales.
- ✗ Assume suitable data wherever not given and state the same.
- ✗ Only one Graph paper shall be provided at the beginning of the exam which should be used only to trace.

**STREET DESIGN**

The street for the design to be considered is in Manipal starting from Tiger Circle to Syndicate Bank junction. The street is urban in context with varied activities and functions upon mid-rise buildings. The growth has been steady over the years thereby changing the character making it a major landmark in the city. But the rate of upgradation of the physical infrastructure for the same is unable to cater the needs of the current scenario. Also to be noted that Manipal is well known town for Education and Health facilities, which means a notable population is floating in nature.

In this light, the street needs to be studied for its criticality on various aspects leading to a suitable solution (street design) based on choice of theme with a sustainable approach for the issue identified. Stake holders for the respective issues to be addressed have to be considered and used in the design project brief.

**The following are the characteristic data of the street:**

Location: Manipal, Tiger Circle to Syndicate Bank Junction

Typology of Road: Sub arterial / Collector Road

Building Typology: Hospital, Bank, Hotel, Restaurant, Grocery shops, Fruit shops, etc.

Street length: 375m

**Classified Volume Count:**

| Classified Volume Count during Peak Hour |     |      |               |                        |      |               |             |               |          |       |                  |             |                 |
|--|-----|------|---------------|------------------------|------|---------------|-------------|---------------|----------|-------|------------------|-------------|-----------------|
| PASSENGER VEHICLE                        |     |      |               |                        |      |               |             | GOODS VEHICLE |          |       | SERVICE VEHICLES |             |                 |
| PUBLIC TRANSPORT                         |     |      |               | PRIVATE VEHICLES       |      | NON-MOTORISED |             | HEAVY         |          | LIGHT |                  |             |                 |
| Mini Bus                                 | Bus | Taxi | Auto Rickshaw | Motorised Two Wheelers | Cars | Cycles        | Pedestrians | Truck         | Trailers | LCV   | Ambulance        | Fire Trucks | Police Vehicles |
|  | 30  |      | 150           | 150                    | 170  | 100           | 400         | 10            | 10       |       | 3                | 1           | 2               |

Floating footfall: 55% of total footfall.

Footpath: Not provided

Drainage: Partially provided, partially open type

Street lights: Irregularly placed

Road type and Condition: Tar and Not maintained

Shoulders: Partially present.



Road width: varying widths

Traffic direction: 2 way and 2 lane

Garbage collection: not provided

Parking facility: On and Off- street

Vegetation:

|   |          |   |
|---|----------|---|
|  | 24m dia  | <i>Ficus benghalensis</i> (Banyan Tree) |
|  | 12 m dia | <i>Alibia saman</i> (Rain Tree)         |

Topography- 1:400(Sloping towards tiger circle)

Run off coefficient of materials:

Concrete Pavements/Asphalt: .8

Brick Paving: .75

Roof of Buildings: .85

Grass covered soil (Slope less than 2%): .15

#### Waste Management data:

| Sl. No. | Waster Composition  | Percentage |
|---------|---------------------|------------|
| 1.      | Organic             | 40%        |
| 2.      | Paper               | 20%        |
| 3.      | Plastic             | 20%        |
| 4.      | Metal               | 10%        |
| 5.      | Hospital Waste      | 5%         |
| 6.      | Hazardous materials | 5%         |

#### Data for Livability calculations:

| Sl. No. | Livability Indicators Applicable For The Site Identified                        | % contribution to physical infrastructure |
|---------|---|---|
| 1.      | Availability of green spaces  | 7%  |
| 2.      | Share of mixed land use area in overall city land use                           | 5%  |
| 3.      | Availability of public and recreational places                                  | 2%  |
| 4.      | Availability of public transport  | 4%  |
| 5.      | Availability of Passenger Information System                                    | 4%  |
| 6.      | Coverage of storm water drains  | 5%  |
| 7.      | Percentage of traffic intersections with pedestrian crossing facilities         | 2%  |
| 8.      | Percentage coverage of footpaths – wider than 1.2 m                             | 5%  |
| 9.      | Extent to which universal accessibility is incorporated in public rights-of-way | 10%                                       |
| 10.     | Level of noise pollution  | 5%  |
|         | <b>Total weightage</b>  | <b>50%</b>                                |

## SUBMISSION REQUIREMENTS:

### 1. DAY 1:

- Issue Identification (Based on the data provided)
- Analysis of the data
- Stake Holder Identification; Integration of Critical Stake-holder and Critical Issue.
- Development of the Project brief

(4+7+4+5 = 20 marks)

### 2. DAY 2 & DAY 3:

- Concept(s)
- Master Plan (1:1000 or 1:500)
- Sections, Elevations (2 no's each) (1:1000 or 1:500)
- Views
- Detailing of the issue identified
- Design Impact assessment

(4+8+5+5+4+4 = 30 marks)

## SITE PLAN (Scale- 1:2000)

