

MANIPAL UNIVERSITY

FOURTH SEMESTER B. ARCH. DEGREE EXAMINATION – APRIL/MAY 2014

SUBJECT: ARCHITECTURAL DESIGN IV (ARC-202)

Tuesday, April 29 and Wednesday, April 30, 2014
(Tuesday 10:00-16:00, Wednesday 10:00-13:00 and 14:00-17:00)

Time: 12 Hrs. (in two days)

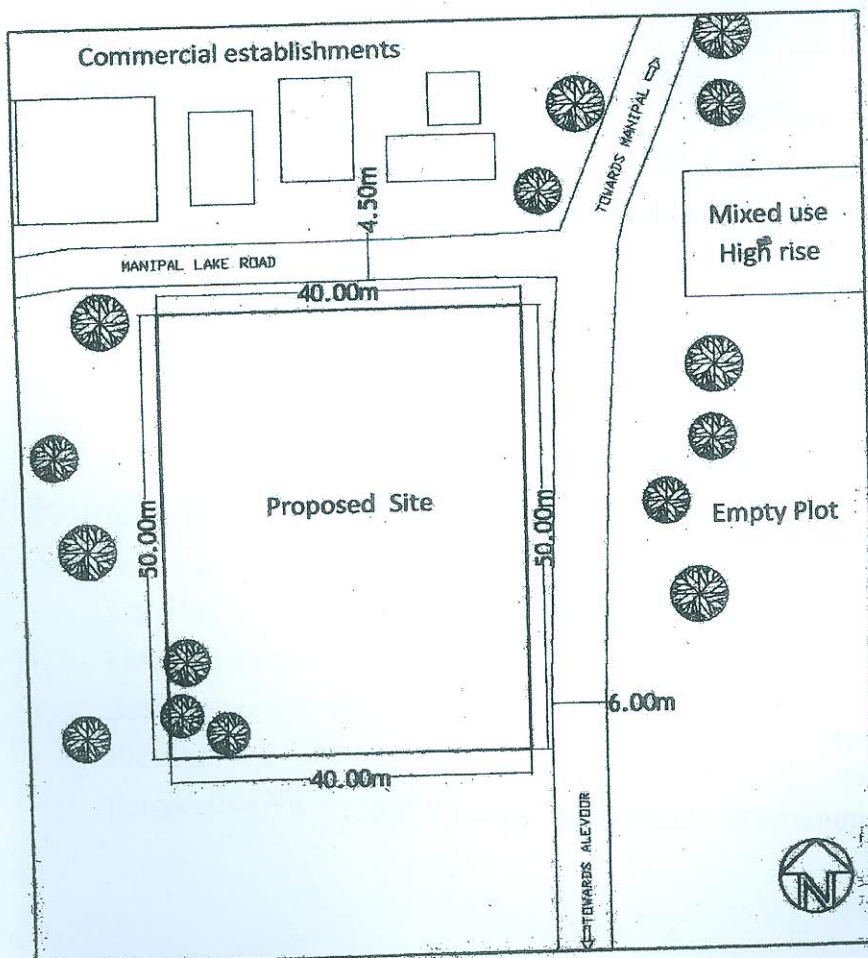
Max. Marks: 50

INSTRUCTION TO CANDIDATES:

- ✍ The, first sitting of 6 hours is continuous, at the end of which the candidate shall submit 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.
- ✍ Non-messy snacks are permitted to be taken by students during examination.
- ✍ Answers shall be drawn and written on drawing sheets only.
- ✍ The medium of presentation,—i.e. Pencil, Crayon, Ink. etc. is left to the choice of the candidate.
- ✍ Assume suitable data wherever necessary with justification.

DESIGN OF A SOFTWARE TRAINING INSTITUTE AT MANIPAL

Robo-Soft, a software company has proposed to build a training institute at Manipal on a site measuring 40m×50m. The details of the site are given below. The institute comprises of academics, recreation, administration and other facilities to provide an all-round development.



- Set backs may be taken as 4.5 meters on South and West sides, 6 m on North and East Sides.
- Height restriction- 10-12 Meters
- Maximum ground coverage- 50%

Requirements for the design problem are as follows:

Areas can be flexible upto 10-15%.

SPACES	AREA (sq.m.)
ENTRANCE LOBBY (RECEPTION/WAITING/LOBBY)	40
ADMINISTRATION	
• DIRECTOR'S ROOM WITH WAITING ROOM AND TOILET	18
• CONFERENCE ROOM FOR 10 PEOPLE	20
• OFFICE AREA FOR 5 PEOPLE	15
SOFTWARE TRAINING INSTITUTE	
• CLASSROOMS -4 NOS.(20 PEOPLE EACH)	25sq.m. each
• LIBRARY (Books & Digital Access)	40
• SEMINAR HALL FOR 40 PEOPLE	50
• FACULTY ROOMS-4 NOS. (SINGLE OCCUPANCY)	10sq.m. each
• COMPUTER LABORATORY/EQUIPMENT ROOM FOR 40 PEOPLE	80
OTHERS	
• RECREATION ROOM	40
• CAFÉ (SEMI-OPEN/OPEN/ENCLOSED)	50
• PARKING (20 four wheelers and 30 two wheelers)	
Note:- Other services, amenities, Public toilets, storage, maintenance and any other required spaces may be added as per the requirements with justification.	

Note:

1. Design shall be **barrier free**.
2. Design shall be equipped to fulfill the light and ventilation requirements of the spaces with **more emphasis on natural features**.
3. **Materials, structural systems and services** shall be an integral part of design.
4. **Block model (5 marks)** using thermocol/ white ivory card sheets/white foam sheet shall be made at any of the **stages 3, 4, or 5**.
5. **Assume** suitable data wherever necessary.
6. **Use sketches to explain design schemes with reasons.**
7. Drawing Requirements as given below should be **free hand** on graph sheets/rice paper/ drawing sheets /etc. or any other appropriate sheets.

DELIVERABLES

DAY— 1: [Stage-1, 2 & 3]

Stage 1: Design Program

- Users and activities.
- Space and area requirements (facilitation, ambience, etc.).
- Design issues.
- Design guidelines.

(5 marks)
Page 2 of 3

Stage 2: Site Analysis & Zoning

- Context (accessibility, site features, site surroundings, etc.)
- Climate.
- Zoning showing major uses and circulation along with reasoning.
- Bubble diagrams on site, Horizontal and Vertical zoning.

(10 marks)

Stage 3: Concept Development:

- Statement of concept (related to function, form, structural systems, technologies, materials, environment, aesthetics, philosophy, theme, details, character, heritage, culture, local influences, etc.)
- Sketches showing initial design ideas based on the concept.
- On site form development and built — unbuilt spaces.

(10 marks)

DAY — 2: (Stage- 4 & 5)

Stage 4: Design Development

- Conceptual design(s)
- Finalization of design with reason for design decisions.
- Refinement of final design.

(10 marks)

Stage 5: Design Scheme

- Site Plan — (3 marks)
- Floor Plans — (5 marks)
- Sections — (3 marks)
- Elevations/Views — (2 marks)
- Model — (2 marks)
- Sketch all plans, elevations, sections and views

(15 marks)

Drawing Requirements:

(Sketches to follow given scale.)

- Site Plan: 1: 200
- Floor Plans with furniture layout: 1: 100
- Sections: 1: 100 (With maximum details)
- Elevations: 1: 100
- Perspective Views/Details

