

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION
THIRD SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2019
SUBJECT: ARC-14-201 – ARCHITECTURAL DESIGN AND DETAILING – III
(2014 SCHEME)

Wednesday, February 06 and Thursday, February 07, 2019
(Wednesday 10:00 – 16:00; Thursday (10:00 – 13:00 & 14:00 – 17:00))

Time: 12 Hrs. (in two days)

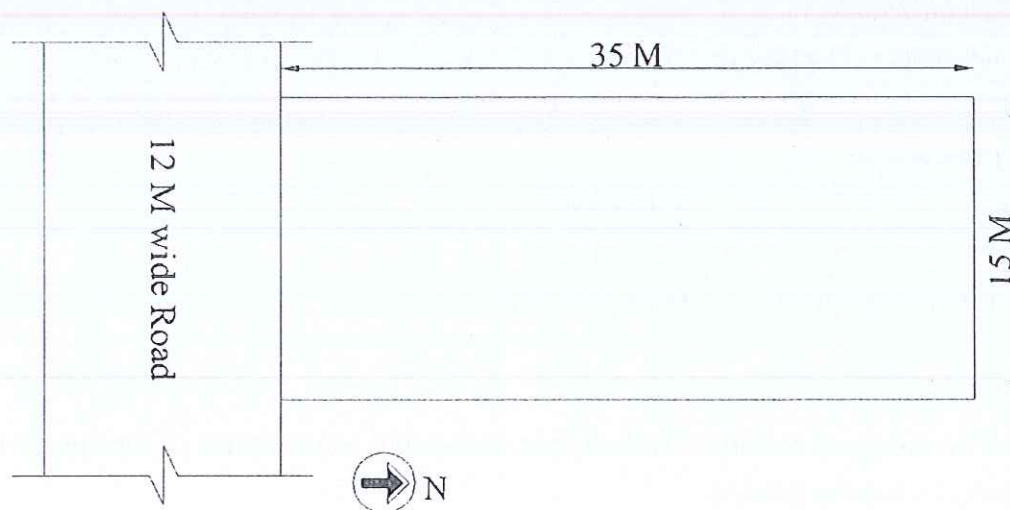
Max. Marks: 50

INSTRUCTIONS 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 – pencil, crayon, ink, etc. is left to the choice of the candidate.
- ✍ Assume suitable data wherever not given and state the same with justification.

DESIGN OF A POLY-CLINIC AT MANGALORE

Design a *Poly-clinic* facility in the proposed site at Mangalore. The site measuring **35 × 15 m.** with a **12 m wide** road abuts the shorter side of the site. It is surrounded by commercial land-use on all the 3 sides. The requirements of the poly-clinic are as follows:



SITE PLAN

DESIGN REQUIREMENTS:

(Areas can be flexible upto 15 – 20% including circulation)

A. Administration Spaces:

- Common reception area (4 staffs)
- Waiting area/lobby for 25 people
- Office room
- Records Room
- Store room
- Dressing room
- Toilet
- Other amenities, if any

B. Consultation rooms:

- Pediatrics - 12.00 m²
- Ophthalmology - 12.00 m²
- General Medicine - 12.00 m²
- Orthopedics - 15.00 m²
- ENT - 15.00 m²
- Dermatology (Skin) - 10.00 m²
- 6 Treatment rooms (one for each consultation) - Each 20.00 m²
- Other ancillary spaces as required

C. Spaces for services:

- X-ray Room
- Ultrasound color Doppler Scanning Facility
- Pharmacy
- Laboratory
- Stairs and lift provisions are required
- Car Parking (5 Nos.)
- Two wheelers (10 Nos.)

D. Set-backs (minimum):

- South. - 3.0 Meters.
- East, West & North. - 1.5 Meters
- No. of floors permitted. - Basement + G + 2.

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 thermocouple/ 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.

SUBMISSION REQUIREMENTS:

1. DAY – 1: (Stage -1, 2 & 3)

Stage 1: Design Programme:

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

(5 marks)

Stage 2: Site Analysis & Zoning:

- i) Context (accessibility, site features, site surroundings, etc.)
- ii) Climate
- iii) Building rules and regulations. (FAR, Height restrictions, Ground Coverage etc.)
- iv) Zoning showing major uses and circulation along with reasoning.
- v) Bubble diagrams on site, Horizontal and Vertical zoning.

(10 marks)

Stage 3: Concept Development:

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

(10 marks)

2. DAY – 2: (Stage- 4 & 5)

Stage 4: Design Development:

- i) Conceptual design(s)
- ii) Finalization of design with reason for design decisions
- iii) Refinement of final design

(5 marks)

Stage 5: Design Scheme:

- i) Sketch all plans, elevations, sections and views.

Drawing Requirements:

(Sketches to follow given scale.)

- i) Site Plan: 1: 200
- ii) Floor Plans with furniture layout: 1: 100

- iii) Sections: 1: 100 (With maximum details.)
- iv) Elevations: 1: 100
- v) Perspective Views/Details

(3+5+3+2+2 = 15 marks)

Model Submission

Block models and/or final model using white ivory card sheets/thermocool/white foam sheet shall be made at any of the stages 3, 4, or 5.

(5 marks)

