

AR-1947

Faculty of Engineering & Technology
B.Arch. (Architecture) IV Semester (CGS) Examination
ARCHITECTURE DESIGN—IV
(10028)
Paper—04 AR 01

Time : Twelve Hours]

[Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

- (1) Answer **ONE** question.
- (2) Diagrams and Chemical equations should be given wherever necessary.
- (3) Use of slide rule, Logarithmic tables, Steam tables, Mollier's chart, Drawing instruments, Thermodynamic tables for moist air, Psychrometric charts and Refrigeration charts is permitted.
- (4) I.S.I. Hand book for structural Steel section, I.S. Code 800/1962 or 1964, I.S. 456 (Revised) I.S. 875 may be consulted.
- (5) Use of D.A. Lows "Pocket Book For Mechanical Engineers" is permitted.
- (6) Discuss the reaction, mechanism wherever necessary.
- (7) First day's submission :— Single line plan with Area analysis concept in suitable scale.

DOCTOR'S BUNGALOW

A renowned General Physician Doctor wants to construct a bungalow for his residence at Seminary Hills area at Nagpur. The plot is of size 40.00m×60.00m with road towards shorter side having width 12m at North side. Back/rear side of the plot there is lake and a dense forest.

DESIGN REQUIREMENTS

- (i) Suitable size verandah or porch may be provided.
- (ii) Formal Drawing room — 30 Sqm.
- (iii) Informal drawing room — 20 Sqm.
- (iv) Dining room — 20 Sqm.
- (v) Master Bedroom with attached toilet — 25 Sq.m.
- (vi) Children bed 2 Nos —20 Sq. m. each with attached toilet.
- (vii) Guest room — 12 Sq. m.
- (viii) Clinic with chamber of doctor and waiting area etc. (necessary arrangement required for clinic) for emergency, parents with attached toilet etc.

- (ix) Kitchen with store and wash-up — 18 Sq. m.
- (x) Puja room with meditation space — 12 Sq. m.
- (xi) Special arrangement of Home Theater, Bar Lounge is required on 1st floor.
- (xii) Common toilet with powder room — 10 Sq. m.

The house should be necessarily two storied with best use of 'Green Concept'

- (xiii) Adequate parking and landscape arrangement.

DRAWING REQUIREMENT

- (i) Site plan in 1:200 scale or in suitable scale.
- (ii) All floor plans in 1:100 or suitable scale.
- (iii) Two Elevations.
- (iv) Two Sections.
- (v) Perspective block view of building.

SUPERMARKET BUILDING

A Sale – Purchase society intends to open and run supermarket in Amravati city. Plot admeasures 50 m × 45 m is allotted for this purpose by the authority. A 12 m. Wide road is on North side of the plot i.e. on shorter side.

AREA REQUIREMENT

- (i) Entrance with waiting Area — 20 Sq. m.
- (ii) Xeros shop with cyber-cafe — 20 Sq. m.
- (iii) Coffee shop and icecream parlour — 25 Sq. m.
- (iv) Market Halls 3 Nos.— 60 Sq. m each.
- (v) Adequate store area
- (vi) Toilets facility for both Genders.
- (vii) Manager's cabin with working space for 4 Nos. staff — 25 Sq. m.

FINAL SUBMISSION REQUIREMENT

- (i) All Floor Plans
- (ii) Two Elevations
- (iii) Two Sections
- (iv) Block perspective view
- (v) Site plan with parking, building circulation activities.

Note :— Use suitable scale for drawing.