



Problem statement -1

A residential building has the following accommodation:

- There is a drawing room of size 3.5m x 5.0m (internal) and a bedroom of size 3.5m x 4.3m (internal) with 3.5m wall common to both.
 - A front verandah of 2.0m wide connected to drawing room only.
 - A kitchen-cum-store of size 3.0m x 4.0m (internal) at the back side of drawing room and a bath-cum latrine 3.0m x 3.5m (internal) at the back side of bedroom, with a back verandah 2.5m wide.
 - All walls are 30cm wide except dwarf wall of verandahs which is 20cm and partition wall between bath and latrine which is 10cm wide. Provide pillars of 30cm x 30cm at suitable places.
 - Brick masonry in plinth 40cm wide and 45cm height.
 - Brick masonry in foundation having two footings of 50cm and 60cm width and depth 20cm each with a total depth of brickwork in foundation 60cm.
 - Concrete footing in foundation (1:4:8) 80cm wide and 25cm depth.
 - Adopt suitable section of dwarf wall in foundation and plinth.
 - Provide 2.5cm thick A.S. flooring (1:2:4) over 10cm thick lime concrete over 15cm thick sand filling. (D.P.C. = 2.5cm.)
 - Height from floor to ceiling in main rooms is 3.5m and that of verandahs, kitchen and lavatory is 2.8m.
 - Roofing consists of 7.5cm thick lime terracing over 10cm thick R.C.C. slab with 0.6m high parapet over drawing and bed room only. Thickness of parapet wall be 20cm.
 - Provide paneled doors of size 1.2m x 2.1m, and 1.0m x 2.1m and panelled windows of size 1.0m x 1.5m at suitable places.
 - Provide chajjas, ventilators and steps wherever necessary. Any missing data may be suitably assumed.
- ✚ Draw to a suitable scale the plan at window sill level.
 - ✚ Sectional Elevation along with foundation details with a section line passing through the front verandah, drawing room and back verandah viewing towards kitchen. Assume all the missing dimensions wherever required.
 - ✚ Invent the other necessary details as per Requirements.

Problem statement -2

A client has purchased a residential plot of size 25 m x 20 m. Its shorter side abutting 9.0m wide society road. Requirements of a residential bungalow are as follows:

Drawing room, kitchen cum dining room with attached store and access to outside, two bedrooms with attached toilet one guest bedroom, common toilet, verandah and internal staircase. North is parallel to 9.0m wide society road. Permissible built-up area is 40%. Permissible F.S.I is 1.1.

- Perform the following steps:
 - Area calculations
 - Area allocations
 - Trial grouping
 - Room size determination
 - Schedule of openings of doors, windows, ventilators and other openings
 - Design of staircase
- Also prepare the following drawings:
 - Line diagram showing all above details.
 - Detailed plan with all relevant details based upon line diagram.
 - Detailed sectional elevation for the section passing through stairs with all relevant details.

✚ Assume all the missing dimensions wherever required.

✚ Invent the other necessary details as per Requirements.

Rules:

1. Rename file name as "yourname_college_submission" , please write your name in place of yourname and your college or organization name in place of college.
2. Submit the file as dwg or pdf or zip (zip the files if different formats are there) and no other formats will be allowed
3. Use any CAD software in which you are comfortable to you like AutoCAD, ArchiCAD, Free CAD, etc.
4. One entry per participant is allowed

Event Co-Coordinator – Asst. Prof. O. P. Gupta

For any issue write to parvaa@gecbanka.org or visit <https://parvaa.web.app>

Or, Contact(WhatsApp) - 9521206017 (Anand Prabhakar)

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