

Total No. of Questions—9]

[Total No. of Printed Pages—4+2

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[4262]-107

S.E. (Civil) (Second Semester) EXAMINATION, 2012

BUILDING PLANNING

(2008 PATTERN)

Time : Four Hours

Maximum Marks : 100

N.B. :— (i) *All* questions are compulsory.

(ii) Answers to the two Sections should be written in separate answer-books.

(iii) Draw neat sketches wherever necessary.

(iv) Section II should be drawn on drawing sheet only.

(v) Figures to the right indicate full marks.

(vi) There will be no internal option for questions in Section II.

(vii) Assume suitable data, if required.

SECTION I

1. (a) What do you understand by 'Master Plan' ? Explain in brief the importance of Master Plan. [6]
- (b) What is Green Building ? State the factors considered in green building design. [5]
- (c) Explain in brief the importance of infrastructure services for a rapidly developed town. [5]

P.T.O.

Or

2. (a) What are the requirements of 'Industrial Zone' in Town planning ? [5]
- (b) Explain with neat sketch the importance of rain water harvesting. [5]
- (c) Why is it necessary to study the principles of Architectural designs ? Explain 'Form' as one of the important principles of Architectural design. [6]
3. (a) Define the following : [6]
- (i) Plinth area.
- (ii) Built up area.
- (b) Discuss in brief 'Transferable Development Right'. [5]
- (c) State three major climatic divisions in India. Explain any *one* in brief. [5]

Or

4. (a) What are the general principles governing the design of building water supply ? [5]
- (b) Explain with neat sketch, 'Solar Energy System' for lighting. [6]
- (c) What are the rules of open spaces around of Building ? [5]

5. (a) Write short notes on : [6]
(i) Sound absorption.
(ii) Sound foci.
- (b) Explain in brief the fire resistance construction of load bearing structure. [6]
- (c) Explain 'One Pipe' plumbing system. [6]

Or

6. (a) Draw a house drainage plan for a '3 BHK' bungalow. [6]
(b) What are the constructional requirements of 'Lift' ? [6]
(c) What is 'Trap' ? Draw a neat sketch of interseptic sewer trap. [6]

SECTION II

7. A line plan for a residential building is shown in Fig. 1. Use the following data :
- (a) All external walls are of 230 mm thick.
(b) All partition walls are of 115 mm thick.
(c) Size of W.C. = 1.2 × 0.9.
(d) Size of bath = 2.1 × 1.2.
(e) RCC frame structure.
(f) Beam sizes = 0.23 × 0.375.

- (g) Column sizes = 0.23×0.375 .
 - (h) Floor to floor height = 3.0.
 - (i) Plinth height = 0.45.
 - (j) Depth of foundation = 1.5.
 - (k) All dimensions are in meters.
- (i) Draw to scale 1 : 50 detailed plan. [10]
 - (ii) Draw to scale 1 : 50 detailed section XX. [10]

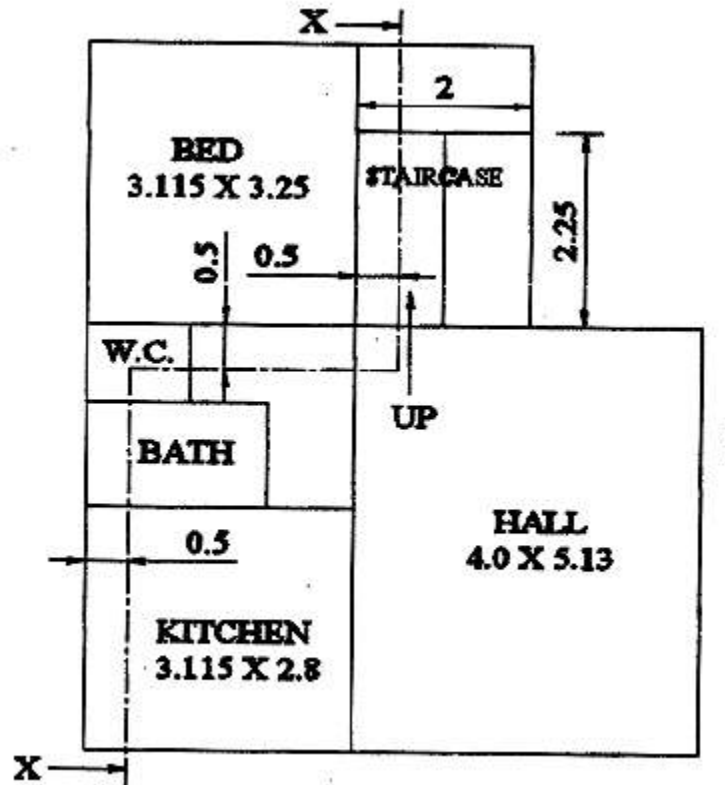


Fig. 1 Plan

8. A boy's hostel is to be planned for an engineering college in a city. Consider various principles of planning carefully. Use standard norms and rules to finalize the dimensions of the various units. Use the following data and draw a suitable line plan : [20]

- (1) Capacity : 200 students.
- (2) RCC framed structure.
- (3) All rooms must accommodate 2 students.
- (4) Each student will be given single bed, one table, one chair, one cupboard.
- (5) Use additional rooms for supporting facilities, like Rector office, common room, WC and Bath, Drinking water facility, etc. Draw line plan only. Draw separate plan for ground and first floor.

9. Draw to scale 1 : 50 or suitable, a two-point perspective for the sketch shown in Fig. 2. Select station point 6 m vertically below the plan from the point where corner in plan touches the picture

plane. Select eye level at 2 m above the ground level. Retain all
Construction lines. [10]

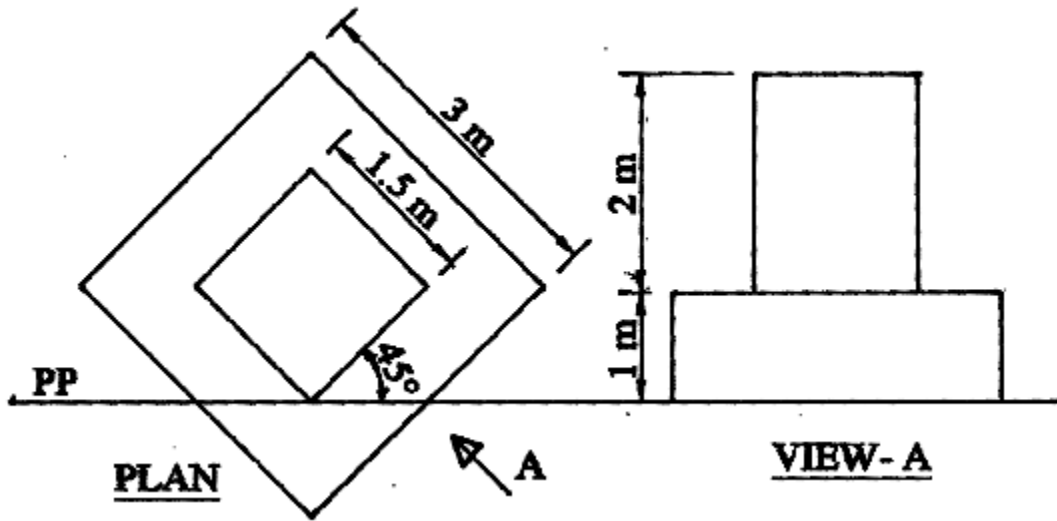


Fig. 2