

Hall Ticket Number:

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Code No. : 13114

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
B.E. (Civil Engg. : CBCS) III-Semester Main Examinations, December-2018

Building Planning and Drawing

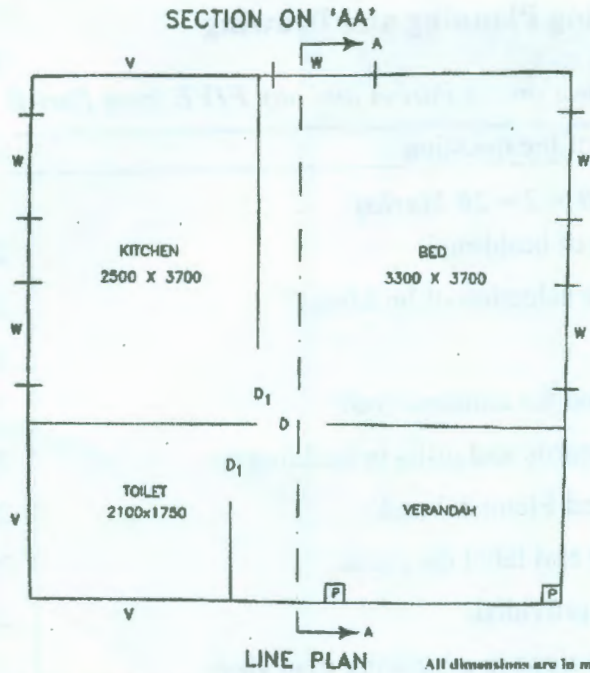
Time: 3 hours

Max. Marks: 60

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Q.No.	Stem of the question	M	L	CO	PO
Part-A (10 × 2 = 20 Marks)					
1.	What is the importance of orientation of building?	2	1	1	1,6,7
2.	What are the factors considered in site selection of buildings?	2	2	1	1,6,7
3.	What are classes of fire?	2	1	2	1,6
4.	What are the ecofriendly materials used for construction?	2	1	2	1,6,7
5.	Draw the conventional signs for cupboards and grills in building.	2	1	3	1
6.	Differentiate between English bond and Flemish bond	2	2	3	1
7.	Draw the components of a door frame and label the parts.	2	2	4	1
8.	Explain where steel spiral staircase is provided.	2	2	4	1
9.	Draw the door, window and ventilator signs in a building plan view.	2	1	5	1
10.	Distinguish a load bearing structure and a framed structure.	2	2	5	1
Part-B (5 × 8 = 40 Marks)					
11. a)	Give the classification of buildings as per national building code?	2	4	1	1,6
b)	Define rain water harvesting. What are the types of rainwater harvesting? Present in detail the various techniques for Rooftop rain water harvesting.	6	2	1	1,6,7
12. a)	Explain the water distribution systems provided in a residential building. Also, present the plumbing fixtures used in a residential building with their significance.	4	2	2	1,6
b)	What are the principles of green buildings? How are green buildings certified? Explain the various criteria for certification of green buildings as per GRIHA guidelines.	4	2	2	1,6,7
13. a)	Draw the conventional sign for	3	3	3	1
	i) Brick ii)light weight concrete iii)pump				
	iv) Manhole v) Earthing point vi) ceiling fan				
	vii) King closer viii) timber.				
b)	Draw an isometric view of wall junction for a one and a half brick wall in Flemish bond showing atleast 4 courses.	5	3	3	1
14. a)	Draw the section and elevation of standard glazed doors.	5	2	4	1
b)	Draw the plan view for open navel stair cases.	3	2	4	1

15. Draw the sectional elevation at AA, plan and elevation for the following line diagram:



thickness of external wall = 300mm
 thickness of internal wall = 200mm
 scale 1 : 60

8 3 5 1

16. a) A two bed room residential building is proposed to be planned in a suburb of a city. The existing site dimensions are 15 m x 20m. What building bye laws as per NBC do you consider for planning this building?

4 3 1 1,6

b) Present how provision is made for physically handicapped people in planning a building as per IS code with neat sketches.

4 1 2 1,6

17. Answer any *two* of the following:

a) Represent any 5 electrical services and 5 plumbing services through standard conventional signs.

4 2 3 1

b) Draw the plan and sectional elevation of an RCC dog legged staircase floor if the floor height is 3m and width of the staircase is 1.2m. Make suitable assumptions.

4 3 4 1

c) Draw the plan, elevation views of a panelled window of size 1.2m x 1.4m.

4 3 4 1

M: Marks; L: Bloom's Taxonomy Level; CO: Course Outcome; PO: Programme Outcome

S. No.	Criteria for questions	Percentage
1	Fundamental knowledge (Level-1 & 2)	60%
2	Knowledge on application and analysis (Level-3 & 4)	40%
3	*Critical thinking and ability to design (Level-5 & 6) (*wherever applicable)	---