

Total No. of Question : [6]

Registration No. :

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Programme Name : Bachelor of Civil Engineering
Regular S.Y.B.Tech.Sem.IV ESE May / June 2023
IV SEMESTER (2021 BATCH)
201CEL213-Building Planning and Design

Duration : 4 Hours

Marks : 100

Instructions :

(Q.1) Attempt all questions : [12.0]

(a)) What are various factors affecting on site selection criteria of building [6.0]

CO :- C213.1

Blooms Taxonomy :- Create

(b)) Explain in detail any three principles of planning a building. [6.0]

CO :- C213.1

Blooms Taxonomy :- Create

OR [b) / c)]

(c)) Explain the significance of Sun Diagram [6.0]

(Q.2) Attempt all questions : [12.0]

(a)) Define built-up area, plinth area and carpet area [6.0]

CO :- C213.1

Blooms Taxonomy :- Create

(b)) What is Floor Area Ratio (FAR)? State which areas of construction are excluded while calculating floor area ratio [6.0]

CO :- C213.1

Blooms Taxonomy :- Create

OR [b) / c)]

(c)) Explain in detail typical schedule of doors and windows. [6.0]

(Q.3) Attempt all questions : [35.0]

(a)) A (G+1) storied bungalow is to be constructed on a rectangular plot of size 14m x 21m. Plot width 14m. facing on 9.0m wide road towards South side. Design bungalow for following data : [30.0]

Living Room : 1

Kitchen : 1 and Dinning : 1

Store room : 1 and Utility : 1

Master Bed Room with attach toilet : 2 No.

Children Bed Room : 1

Guest Bed Room : 1

Staircase and Sanitary Block as per requirement

The necessary verandah, porch, parking should be provided in the design.

Assume any other suitable data if required.

Draw with the scale 1:100 detailed developed Ground floor and First floor plan with suitable wall thickness and marginal distances

CO :- C213.1

Blooms Taxonomy :- Create

(b)) Draw (not to Scale) suitable furniture layout for Master Bed Room planned in above. [5.0]

CO :- C213.1

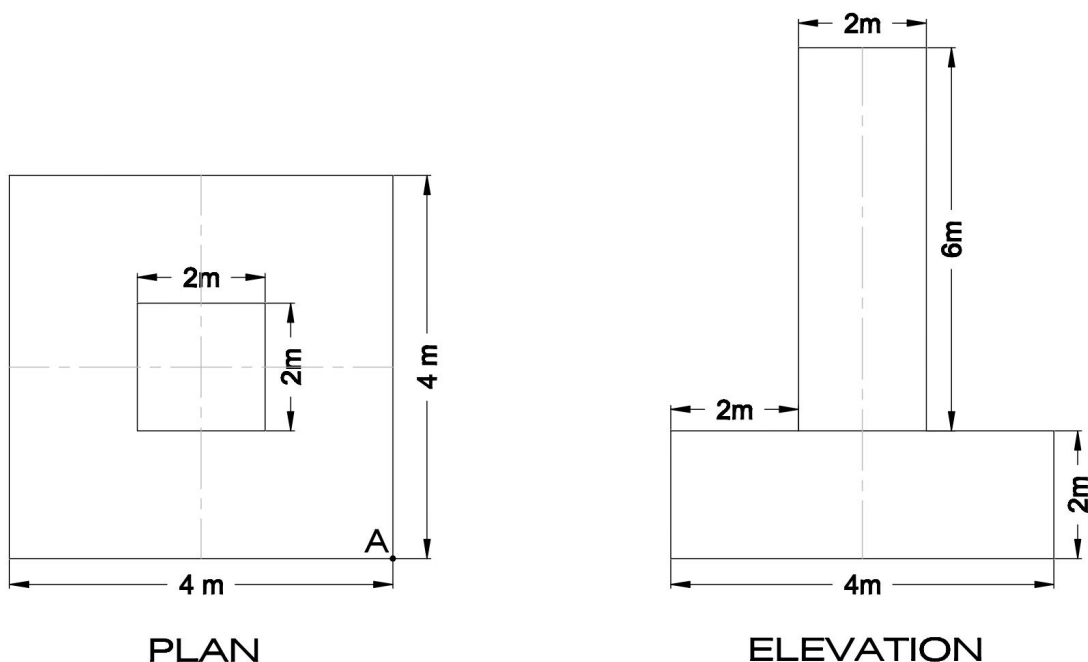
Blooms Taxonomy :- Create

OR [b) / c)]

(c)) Draw to the scale site plan of a building planned above. [5.0]

(Q.4) Attempt Compulsory : [15.0]

Draw the two point perspective view of the object shown in figure to suitable scale taking station point 6.0m along the central visual ray. Assume eye level at 1.8m above ground level. The base block of pillar makes an angle of 30° with P.P. and touches the same at 'A'. Retain all construction lines.



CO :- C213.2

Blooms Taxonomy :- Apply

(Q.5) Attempt all questions : [14.0]

(a)) Explain the different types of traps used in plumbing system. [7.0]

CO :- C213.3

Blooms Taxonomy :- Analyze

(b)) Give the comparison of various writing systems.

[7.0]

CO :- C213.3

Blooms Taxonomy :- Analyze

OR [b) / c)]

(c)) What is fire resistance of a building element? What factors determine the fire resistance?

[7.0]

(Q.6) Write short notes on any three :

[12.0]

(i)) Principle of architectural composition

[4.0]

(ii)) Septic Tank

[4.0]

(iii)) Rain water harvesting

[4.0]

(iv)) Types of pipes

[4.0]

(v)) Necessity of earthing

[4.0]
