

Seat No.	
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S.E. (Civil) (Semester - IV) (New Course) Examination, 2013

BUILDING DESIGN

Sub. Code : 43589

Day and Date : Friday, 24 - 05 - 2013

Total Marks : 100

Time : 10.00 a.m. to 1.00 p.m.

- Instructions :**
- 1) Q. No. 1 is compulsory.
 - 2) Attempt any three questions from Section - II.
 - 3) Assume suitable data if necessary.

SECTION - I

Q1) Design a Twin bungalow for two brothers, one an Architect and one a civil engineer each having a B.U.A* of 150 m². The details of each bungalow are as follows :

- a) G.F - B.U.A. area of approx. 90 m² and F.F - B.U.A. area of approx. 60m².
- b) Keeping principles of planning in mind divide the following units on the G.F. and F.F. - Living Room, Kitchen cum Dining, Guest Bedroom with attached toilet, Master bedroom with attached toilet, children bedroom, common toilet and an open terrace.
- c) A staircase of min 0.9 m width.
- d) A space for uncovered/partially covered car parking.
- e) Suitable size of verandah and circulation spaces

*A deviation of $\pm 10\%$ in B.U.A. is allowable.

Draw to a suitable scale :

- i) Plan (G.F and F.F.) of any one bungalow. [30]
- ii) Electrical and Furniture layout for any one habitable room (scale 1:50). [15]
- iii) Elegant Front elevation. [15]

P.T.O.

SECTION - II

- Q2) a)** What do you understand by Low cost housing Name some materials/ methods. [8]
- b) What are the different methods of Electrification? Justify under what factors you will consider to choose a particular method with examples. [8]
- Q3) a)** What are the principles of planning which an architect should consider while constructing a house for a politician of the rank of M.L.A in a city area. Describe any two. [8]
- b) Differentiate between artificial and natural ventilation. [8]
- Q4) a)** Explain the difference between plastering and pointing. Explain the different types of pointing with neat sketches (any four). [8]
- b) What are the systems of ventilation? Explain natural ventilation in detail. [8]
- Q5) a)** What are the possible defects in an auditorium from acoustics point of view. Suggest suitable remedies in each case. [8]
- b) What is thermal insulation? Explain Conduction, Convection and Radiation in thermal transmittance. [8]
- Q6) Write short notes on any three :** [3 × 6 = 18]
- a) Low cost Housing.
- b) Different materials used in flooring.
- c) Rain water harvesting.
- d) Importance of maintenance and repairs of structures.

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