

5

MAY 2016

Total No. of Questions—9]

[Total No. of Printed Pages—4

Seat No.	
-------------	--

[4957]-107

SE (Civil) (Second Sem.) EXAMINATION, 2016

BUILDING PLANNING

(2008 PATTERN)

Time : Four Hours

Maximum Marks : 100

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

(ii) Answer to the *two* sections should be written in separate answer books.

(iii) Draw neat sketches wherever necessary.

(iv) Section *two* 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 are the objectives of 'Town planning' ? List the authorities involved in its preparation. [6]
- (b) What are the general instructions to be followed in maintaining village form VII ? [6]
- (c) Enlist the factors considered in green building design. [6]

P.T.O.

Or

2. (a) What do you understand by zoning ? Explain density zoning. [6]
- (b) What are the different methods of rain water harvesting system ? Explain any *one* in detail. [6]
- (c) What do you understand by Architectural design principles ? [6]
3. (a) What are the 'NBC' recommendations to prepare layout plan ? [5]
- (b) Discuss in brief the demerits of 'Transferable Development Right'. [5]
- (c) State three major climatic divisions in India. Explain any *one* in brief. [6]
- Or
4. (a) Draw the flow diagram of summer air conditioning and winter air conditioning. [6]
- (b) Explain with neat sketch, 'Solar Energy System' for lighting. [5]
- (c) Define :
- (i) Daylight factor (DF) [2]
- (ii) Cosine law of illumination. [3]
5. (a) What are the specific requirements of acoustical design of an auditorium ? [6]

- (b) Discuss the fire protection system in a multi-storey commercial building. [5]
- (c) What are the constructional requirements of lift for shopping mall building ? [5]

*Or*

6. (a) How will you design the water storage tank for a township consisting of 1000 population ? [6]
- (b) Explain with neat sketch, the function of 'Interseptic' sewer trap ? [5]
- (c) Discuss in detail the necessity of different building services in multistoried building ? [5]

## **Section II**

7. Design and draw a detailed floor plan of a single storey RCC framed structure bungalow (3 BHK). [15]

**Data given :**

Plot size — 14 m × 25 m

F S I — 1.0

Width of road abutting the plot — 12.0 m.

Wall thickness — 230 mm

Partition wall between W C and Bath — 115 mm

Plinth height — 1000 mm

8. (a) Draw a detailed sectional elevation of the floor plan drawn in Q. 7. The section line should pass through w/c, bath and staircase. [10]
- (b) (i) Explain with neat sketch the principle of perspective drawing. [5]
- (ii) Define center of vision and picture plane. [5]
9. Design a library building for a polytechnic college. The intake capacity is 300 students. The building is 'RCC' framed structure and is two storied. Draw only dimensioned line plans, also show openings (doors, windows and ventilators.) The plan should consist of following units. [15]

**Units :**

- (i) Reading room—2 nos.
- (ii) Book issuing section—1 no.
- (iii) Store room—3 nos.
- (iv) Reference section—1 no.
- (v) Librarians cabin—1 no.
- (vi) Staircase—1 no.
- (vii) w/c and bath—separate for gents and ladies.
- (viii) Record room—1 no.