Seat
No.

[5057]-207

S.E. (Civil) (Second Semester) EXAMINATION, 2016

ARCHITECTURAL PLANNING AND DESIGN OF BUILDINGS

(2012 PATTERN)

Time : Two Hours　　　　　　　　Maximum Marks : 50

N.B. :— (i) Assume suitable data, if required.

(ii) Figures to the right indicate full marks.

(iii) Solve Q. Nos. **1** or **2**, Q. Nos. **3** or **4** in Answer-book.

(iv) Solve Q. Nos. **5** or **6**, Q. Nos. **7** or **8** on drawing sheet only.

1. (a) What is development plan ? State its importance. [7]

　(b) Explain the following principles of architectural planning with suitable sketches : [6]

　　(i) Prospect

　　(ii) Roominess.

Or

2. (a) Enlist documents to be submitted for seeking commencement Certificate and Occupancy Certificate. [6]

　(b) State the importance of Rain Water Harvesting and explain the methods. [7]

3. *(a)* What are Acoustic Defects ? Explain any *two* in detail. [7]

   (b) Explain the following : [6]

   (i) TDR

   (ii) FSi.

Or

4. *(a)* The internal dimensions of a factory building are 30 × 20 × 10 m. The number of air changes required are three. The difference between indoor and outdoor temperature is 6°C. Find the area of openings required, if the vertical distance between inlet and outlet openings is 6 m. [7]

   (b) Define the following terms : [6]

   (i) Picture plane

   (ii) Vanishing point

   (iii) Building line.

5. Draw a detailed floor plan to a scale of 1 : 50 of a residential building for the given line plan below. Use the following data : RCC framed structure, Wall thk 230 mm, Single storey building, Plinth height 500 mm, All dimensions are in mm. Assume suitable locations and sizes of doors, windows. Refer the figure. [13]

Or

6. Design a single storey residential building (Framed structure) and draw a detailed Floor Plan to a scale of 1 : 50 with the following data : [13]

   (i) Living room   1 no.   approx. area 15 m^2

(*ii*)	Kitchen cum dining	1 no. approx. area 15 m²
(*iii*)	Bed rooms	2 no. approx. area 12 m² each
(*iv*)	Store room	1 no. approx. area 16 m².
(*v*)	Floor to floor height	3.2 m
(*vi*)	Foundation and Plinth in UCR masonry	
(*vii*)	Varandah, Passage, Staircase, W.C. and Bath etc. of suitable size should be provided. Show north direction.	

7. It is proposed to construct a flooring tile factory. Design the building and draw only Line Plan considering all necessary units. The factory must consist of the following units : [12]

   (*i*)   Administration and engineering staff unit

   (*ii*) Storage space for raw materials

   (*iii*) Production unit

   (*iv*) Storage space for finished products

   (*v*)   Sanitary blocks etc.

   Show north direction and mention scale.

Or

8. Design a single storey hostel building and draw only Line Plan with the following data : [12]

   (*i*)   Number of students   40

   (*ii*) All rooms are two bedded   assume suitable size

   (*iii*) Recreation room   approx. area 35 m²

(*iv*) Gymnasium   approx. area 15 m²

(*v*)   Office space   approx. area 12 m²

(*vi*) Store room   approx. area 10 m²

(*vii*) Varandah, Passage, Staircase, W.C. and bath etc. of suitable size should be provided.

Show north direction and mention scale.