

College of Engineering, Pune

S.Y. B. Tech. (Civil)

(CE 208) Building Design & Drawing

Date:

Time: 3 hrs.

Academic Year: 2011-12

Max. Marks: 50

- Instructions: 1. Answer Q. 4 and Q. 5 on drawing sheet.
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary.

Q. 1. A) Explain the necessity of building bye laws. (2)

B) What is F.A.R.? What are the areas exempted while calculating FAR? (3)

Q.2. A) The internal dimensions of a factory building are 40 m x 25 m x 12 m. The number of air changes required, per hour are three. The difference between indoor and outdoor temperature is 8° C. Find the area of openings required if the vertical distance between inlet and outlet openings is 8 m. (6)

B) Explain the term 'Air Conditioning' and differentiate between summer & winter air conditioning. (4)

Or

C) Explain the importance of day-lighting and the factors influencing the day-lighting. (4)

Q.3 A) What are different acoustic defects? Explain any one in detail. (4)

B) Explain the terms, i) Fire Load ii) Evacuation Time. (4)

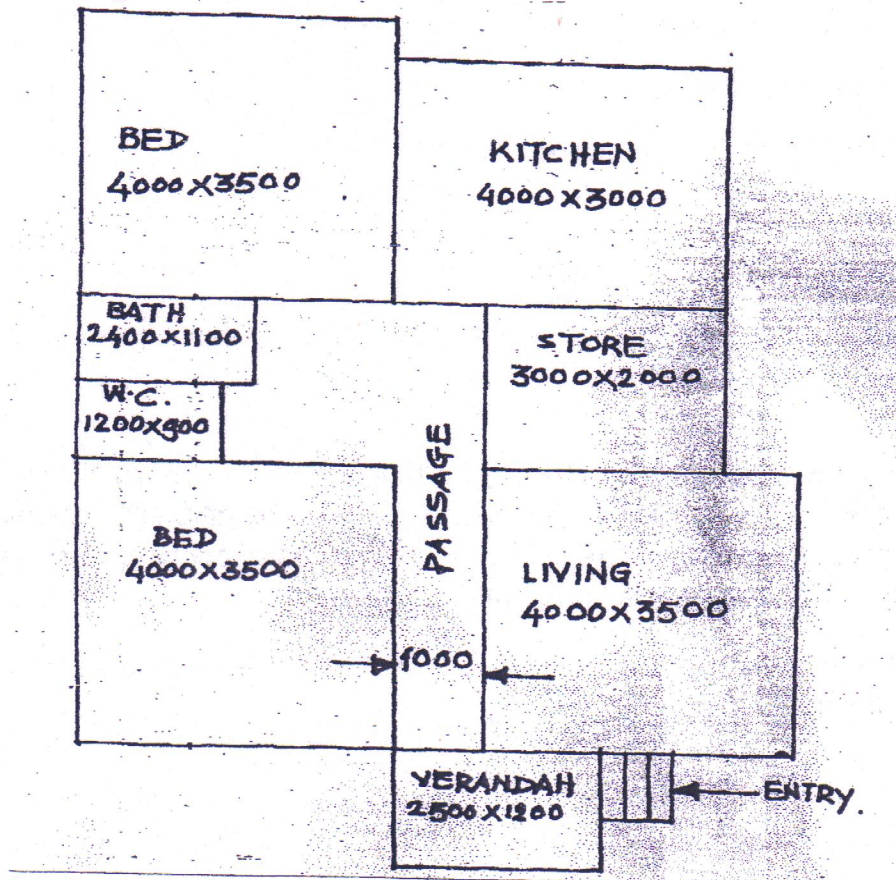
Or

C) An auditorium 35 m x 25 m and 9 m high has concrete floor (of absorption coefficient $\alpha = 0.03/m^2$), suspended ceiling ($\alpha = 0.05$), Cement plaster walls ($\alpha = 0.02$) and 1000 seats ($\alpha = 0.16$). Find the reverberation time neglecting the effects of doors, windows etc. (4)

D) Draw sketches of 'P' and 'S' Trap. (2)

Q. 4 A) Draw detailed floor plan to a scale of 1:50 of a residential building for the given line plan below. Use following data,

RCC framed structure, All dimensions are in mm, Wall thickness: 230 mm, Single storey building, Assume suitable locations & sizes of doors & windows, Plinth height: 600 mm. (12)



B) It is proposed to construct a co-op bank building. Draw only 'Line Plan' to a suitable scale, considering supplementary services. Locate all units on ground floor only. Give dimensions and mark north direction. (8)

Q. 5 Draw to a scale of 1:50 or otherwise a one point perspective of an object as shown below; Height of the object = 200 mm. (5)

