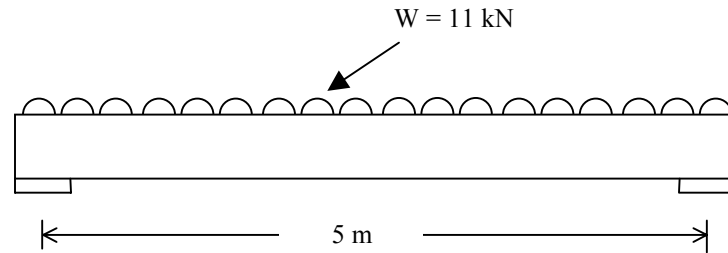


CHAPTER 6

Question 1

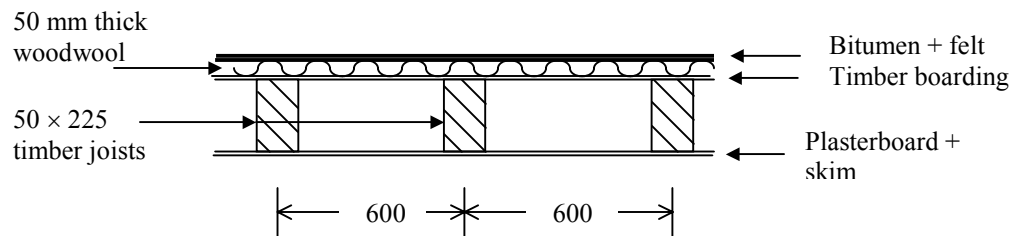


A $100 \times 300 \text{ mm}$ deep section would be suitable.

Question 2

Use $47 \times 175 \text{ mm}$ joists.

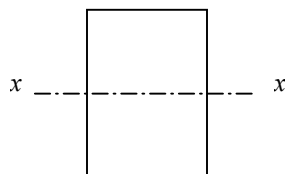
Question 3



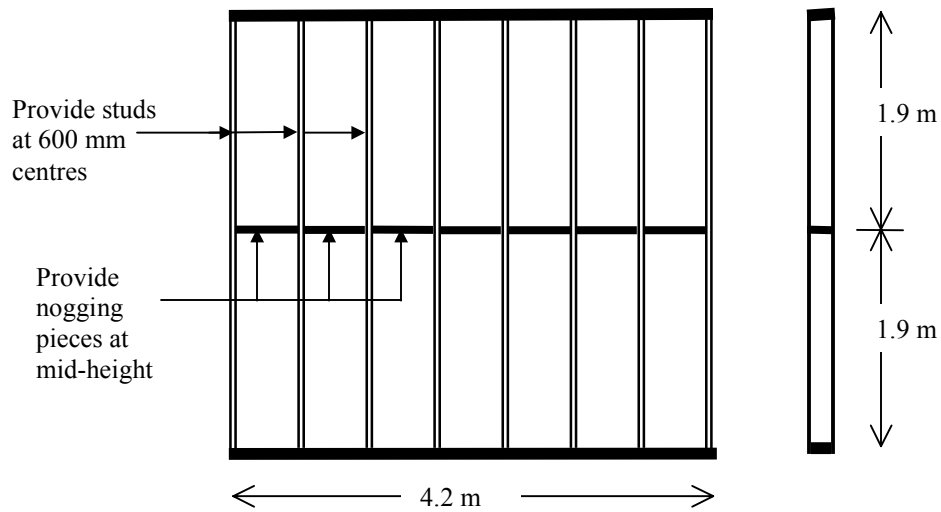
The maximum imposed load the roof can support is 0.84 kN m^{-2}

Question 4

- (i) A 100 mm square section of strength class C27 or a $100 \times 150 \text{ mm}$ rectangular section of strength class C16 would be suitable.
- (ii) Assuming the moment acts about $x-x$, a $100 \times 150 \text{ mm}$ rectangular section of strength class C16 would be suitable.



Question 5



Studs

Use 47×125 mm strength class C16 studs.

Sole and top plates

Use 75×125 mm strength class C16 sections.

Noggings

Use 47×125 mm strength class C16 sections.

Covering

Use plasterboard and skim.