

NORMAN HENSILWOOD HIGH SCHOOL
EXAMINATIONS



DATE	13 JUNE 2011
GRADE	9
SUBJECT AND PAPER	TECHNOLOGY
TIME	11.30 – 13.00
MARKS	100
EXAMINER	Mr N D Williams
MODERATORS	Mr C Jacobs

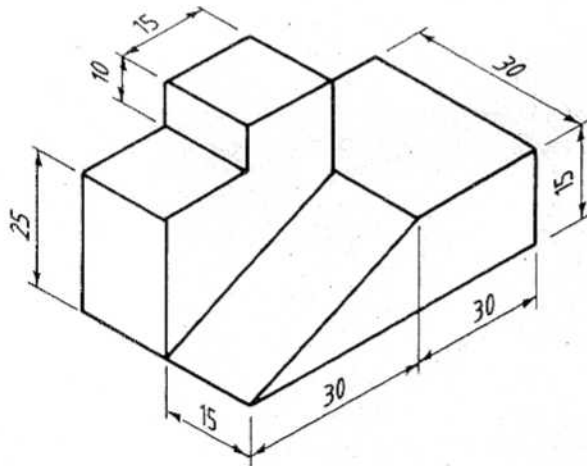
D. C. 6.6.2011
Checked

INSTRUCTIONS:

1. Answer all the questions.
2. Use the drawing sheet for the communication section.
3. All drawings and sketches must be done in a 2H pencil.
4. Underline all completed questions.
5. Write neatly and legibly.

QUESTION ONE: COMMUNICATIONS

1. A pictorial view (ISOMETRIC VIEW) of a shaped block is shown.

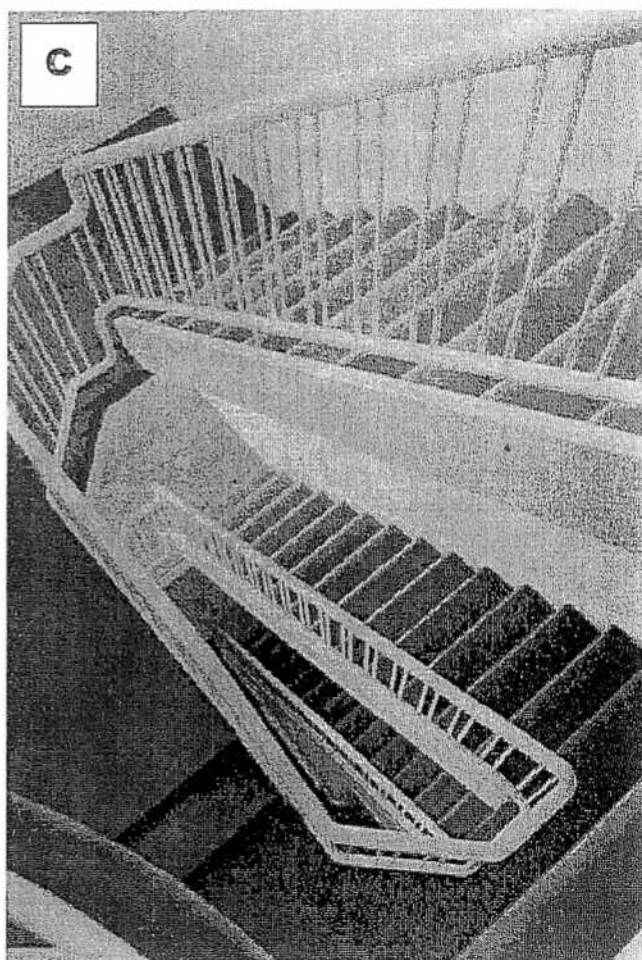
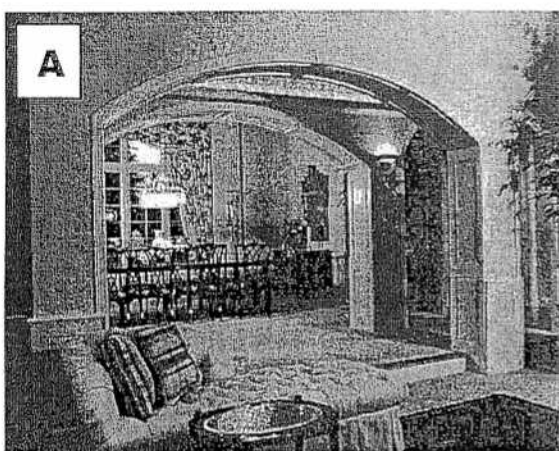


- 1.1. Using the given measurements, draw the ISOMETRIC VIEW of this shaped block, and in the same position. (20)
- 1.2. Show all the hidden detail, using a short dash line. (3)
- 1.3. Draw a 10mm / 1cm border; a 20mm printing cage; print with a set square, your initial, surname, grade and checked by. (5)
- 1.4. Outline your drawing. (1)

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QUESTION TWO: BUILDING CONSTRUCTION

2. STUDY THE PICTURES BELOW AND ANSWER THE QUESTIONS THAT FOLLOW.



- 2.1. Identify the difficulties an elderly person using a wheelchair or walking frame, would experience if she/he were living in this house. Identify TWO difficulties per room.
 - 2.1.1. A Living Room (a) (b) (2)
 - 2.1.2. B Bathroom (a) (b) (2)
 - 2.1.3. C Stairwell (a) (b) (2)

2.2. List TWO possible improvements you could make to each area of this house to make it more suitable for an elderly person using a wheelchair or walking frame.

2.2.1. A Living Room (a)

(b)

(2)

2.2.2. B Bathroom (a)

(b)

(2)

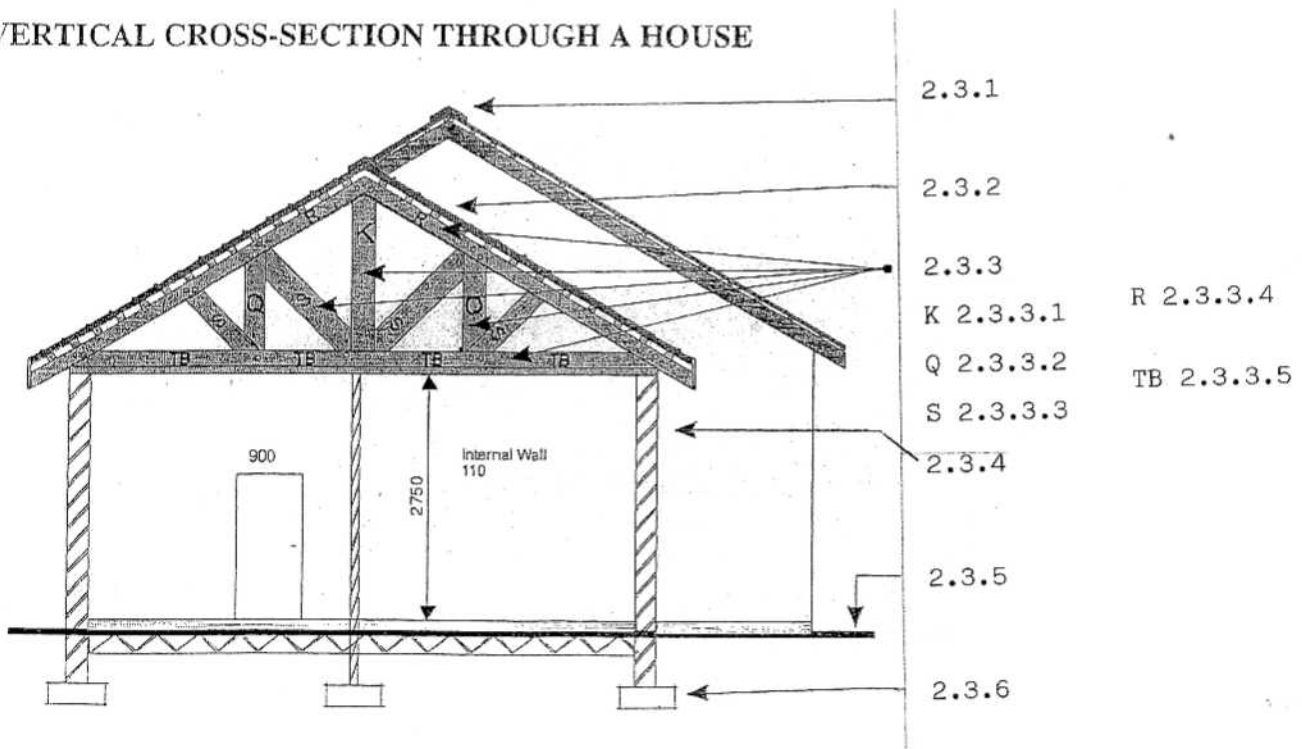
2.2.3. C Stairwell (a)

(b)

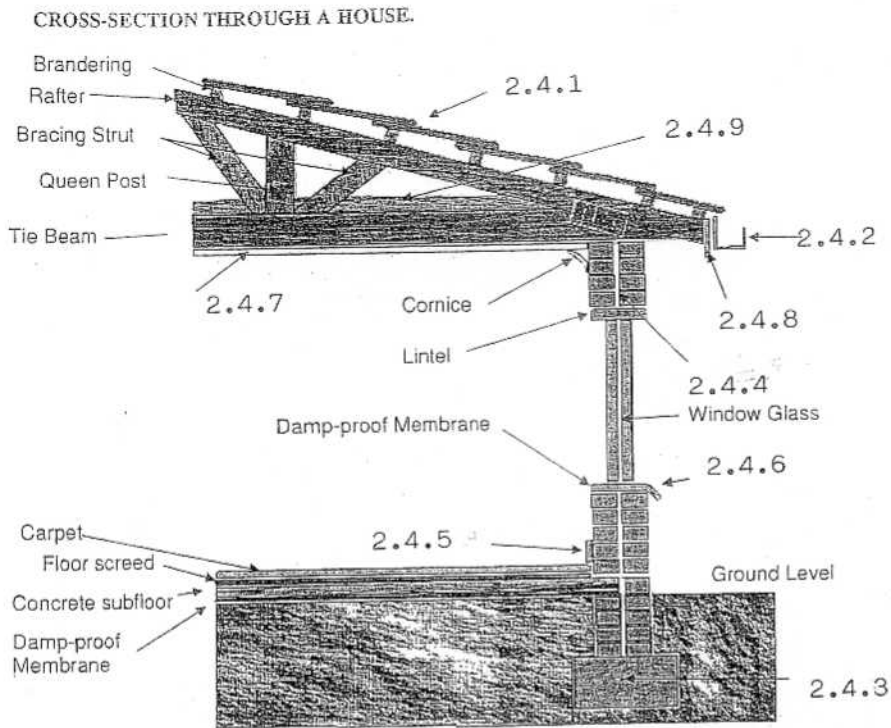
(2)

2.3. A vertical cross-section through a house is given. Study the diagram and answer the questions 2.3.1. to 2.3.6. Question 2.3.3. is a Roof Truss, 11 x 1 = (11)

VERTICAL CROSS-SECTION THROUGH A HOUSE



2.4 A cross section through a house is shown. Identify the parts numbered 2.4.1 to 2.4.9.



9 x 1 = (9)

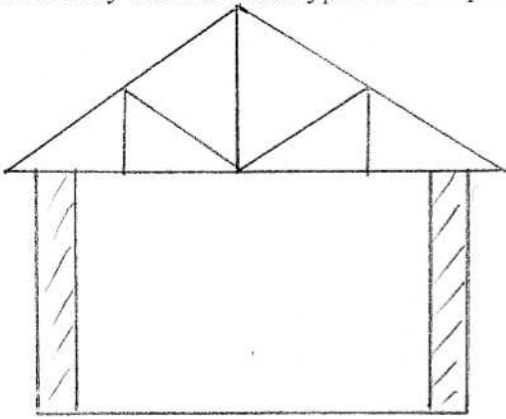
2.5 What function does the following parts serve in structure.

- 2.5.1 Foundation
- 2.5.2 Lintel
- 2.5.3 Guttering
- 2.5.4 Skirting

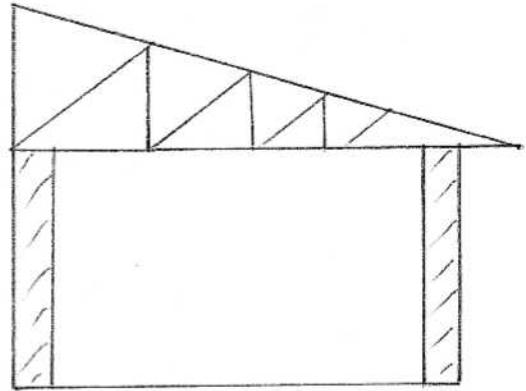
4 x 1 = (4)

QUESTION THREE:

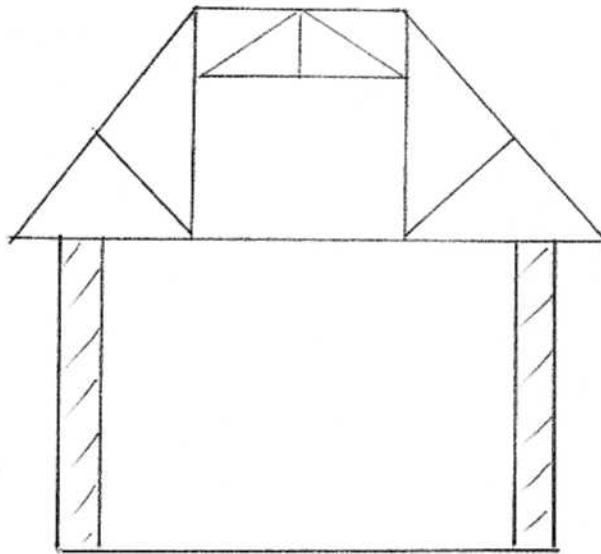
3.1. Identify the different types of roof patterns illustrated below.



(b)



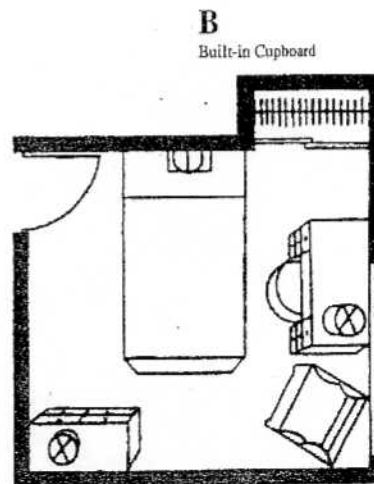
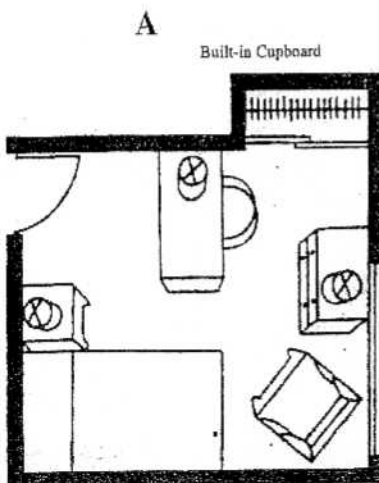
(a)



(c)

3 x 2 = (6)

3.2. Study the following two plans carefully.



3.2.1. Summarise your ideas about the two plans, whether positive or negative. 4 x 1 = (4)

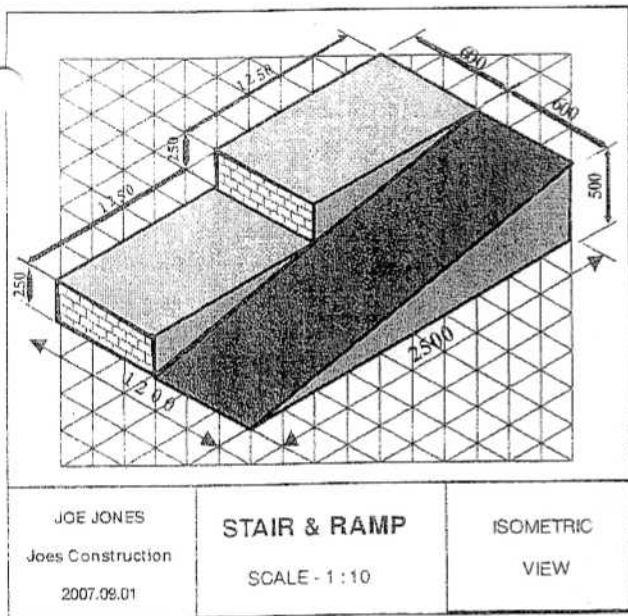
3.2.2. Draw the traffic lanes in for each plan above, on your drawing sheet. 8 x ½ = (4)

3.2.3. In which plan was the available space used best, A or B. (1)

3.2.4. Motivate your answer by giving THREE reasons for your answer. 3 x 2 = (6)

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QUESTION FOUR: STRUCTURES



Joe Jones submitted this design for a stair and ramp to your father. Fortunately, one of your father's friends, Mr Mabasa, is a civil engineer, and your father asked him to give his opinion of the suitability of the design.



Mr Mabasa was shocked at the how badly the proposed structure has been designed, and insisted that your father reject the design. Your father was surprised because the drawing is very neat and he thought it looked "rather nice." He asked Mr Mabasa what he found to be so wrong.

4. Study the given source, the drawing generated by the designer, and then answer the questions.

4.1. List FOUR errors that a good designer would not have made for this design. 4 x 2 = (8)

4.2. List THREE improvements a good designer would make for this design. 3 x 2 = (6)
(14)

GRAND TOTAL [100]