THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

074

CARPENTRY AND JOINERY

(For Both School and Private Candidates)

TIME: 3 Hours

16 November 2000

Instructions

1. This paper consists of SEVEN (7) questions.
2. Attempt question number 1 and any other FOUR (4) questions.
3. Question number 1 carries 32 marks and the others carry 17 marks each.
4. Write your Examination Number on every page of your answer booklet(s).

MAKTABA

This paper consists of 3 printed pages.

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1. (a) What is a joint?

(b) By means of sketches show how a mortise and tenon joint is reinforced by pining.

(c) Name the methods used to plane the end grains of timber (diagrams can be included).

(d) Make a sketch of a square hounched M & T joint and show the relations between

(i) the length of hounch and the tenon thickness.

(ii) the depth of hounch and the width of tenon.

(iii) the thickness of tenon and the thickness of work piece.

2. (a) What is a centre as used in building construction?

(b) Name three areas in a building which need centring.

(c) Mention four types of centres.

(d) Make a sketch of a Gothic arch centre and show

(i) the upper tie
(ii) ribs
(iii) props
(iv) lower tie
(v) hagging.

3. (a) Define the term "roof coverings".

(b) Name five types of roof coverings.

(c) Give five roof covering requirements.

(d) A Gable roof's slopping edge is 4 m long and 10 m wide. Calculate the number of C.I.S. required to cover the roof. (Take length of sheets to be 2½ m and a width of 1m).

4. (a) Define the term "conversion" as used in building construction.

(b) Name three methods of converting timber.

(c) Write short notes on the following

(i) Baulks
(ii) Planks
(iii) Flitches
(iv) Battens
(v) Scantlings.

(d) What will happen if the conversion of fallen logs is delayed?

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5. (a) Define the term "floor".

(b) Mention all classes of timber floors.

(c) What causes the difference in floor classes mentioned in (b) above?

(d) What governs the selection of timber floor joist sizes?

(e) What do you understand by the term "herring bone strutting"?

6. (a) What is a partition?

(b) Mention two types of timber partitions.

(c) Make a sketch of a STUD timber partition and show:

(i) studs
(ii) staggered nogging pieces
(iii) puncheon
(iv) fillet.

(d) By means of sketches show two methods of joining nogging pieces to studs.

(e) Show or name the area where the tusk tenon joint is used.

7. (a) What are wood working machines?

(b) Name four common wood working machines.

(c) List four operations done on the circular saw machine.

(d) Name all stages of sharpening a circular saw blade.

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