

**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

Thursday 23rd October 2008 p.m.

Instructions

1. This paper consists of sections A, B and C.

2. Answer all questions in sections A and B and two (2) questions from section C.

3. Electronic calculators are not allowed in the examination room.

4. Cellular phones are not allowed in the examination room.

Write your Examination Number on every page of your answer booklet(s).



This paper consists of 4 printed pages.

SECTION A (20 marks)
Answer all questions in this section.

1. For each of the items (i) –(x), choose the correct answer among the given alternatives and write its letter beside the item number.

- (i) Which of the following saws protect the operator from kick back?
A Dado saws B Rip saw C Cut control saw
D Grooving saw E Cross cut saw
- (ii) One of the following is **not** a natural glue.
A Animal glue
B Casein glue
C Urea resin glue
D Soya bean glue
E Cassava glue
- (iii) A tenon consists of all of the following parts **except**
A shoulder B checks C haunch
D bevel E rabbet.
- (iv) When a piece of wood is bent it
A stretches along the outside
B stretches along the inner side
C bends to the centre of the pith
D stretches on neither side of the bend
E stretches at the end of the season.
- (v) When gluing up flat boards, one of the following is **not** needed.
A Bar clamp
B Hand screw clamp
C Saw clamp
D Column clamp
E G. Cramp
- (vi) Insitu cast concrete can be defined as concrete that has been made
A in location
B on site
C in a factory
D in large units
E on site large units.
- (vii) A mobile scaffold being used by a carpenter to fix some display signs must be
A light enough for the carpenter to move it on his or her own
B capable of being moved from the working platform
C capable of having its wheel locked
D stable so that when being moved tools will not fall from the working platform
E fixed rigidly to the wall.



- (viii) The main purpose of staining is to
 A cover up mistakes and blemishes
 B produce an imitation of another wood
 C cover up the blemishes
 D fill the pores
 E produce a rich and mellow colour.
- (ix) The mould on the corner of the stile is called
 A a scotia B an ovolo C a quadrant
 D an ogee E a bead.
- (x) In modern home construction the locking device that is used in doors is a
 A mortise lock
 B cylindrical rim lock
 C rim lock
 D chest lock
 E cylindrical lock.

2. Match the items in List A with the responses in List B by writing the letter of the correct response beside the item number.

LIST A	LIST B
(i) A long plane particularly useful in edge planning of long boards	A Bradawl
(ii) The purpose of back iron in a jack plane	B Break the shavings
(iii) The most suitable saw to cut across the middle of a sheet of 6 mm plywood	C Common wire nail
(iv) Nail primarily used for flooring purposes	D Crown guard
(v) The bottom part of a plane	E Cut nail
(vi) A marking gauge with two spurs	F Cutting gauge
(vii) The guard that is fitted over the blade of a circular saw	G Fence guard
(viii) In saw maintenance, the operation involved of filing the points until the teeth are in one line	H Fore plane
(ix) Is used for cutting recesses along the edges of timber	I Mortise gauge
(x) Makes a pilot hole for screw	J Nail punch
	K Panel saw
	L Planning timber
	M Seat of plane
	N Rip saw
	O Router plane
	P Smoothing plane
	Q Smoothing
	R Sharpening
	S Sole
	T Topping





SECTION B (40 marks)

Answer all questions in this section.

3. Differentiate the uses of pencil and marking knife in carpentry and joinery.
4. Name two (2) types of bench saws and state their special uses.
5. State two (2) safety precautions to be observed when handling sharp edged tools.
6. Name two (2) holding devices in woodwork and state their special uses.
7. (a) When is a sliding door provided?
(b) What type of doors would you suggest for bathroom and dining room of a modern residential building?
8. What is the difference between stair and staircase?
9. What are the requirements of a good form work?
10. Name two (2) types of nails and describe the features of each type. State where each type is used.
11. Name two (2) types of sanding machines and state their major applications.
12. Draw a simple sketch to show "herring bone strutting".

SECTION C (40 marks)

Answer two (2) questions from this section.

13. (a) Define the term floor.
(b) What are the requirements for a good floor finish?
(c) Mention two (2) components of a floor.
(d) What is the difference between the bridging joists and binders in a timber floor system?
14. (a) Explain the procedure to be followed in squaring the dimensions of a small board.
(b) (i) What is scaffolding?
(ii) Mention four (4) types of scaffolding.
(iii) Draw a well labelled diagram of a brick layer scaffolding.
15. (a) Differentiate a ledged and battened door from ledged braced and battened door.
(b) Sketch a well labelled diagram of a ledged battened and braced door. Show all the necessary parts.
(c) Explain the reasons for a screw to have stronger holding power than a nail.
(d) Show the main functions of the following items.
(i) A stay
(ii) A set of castors