



DEPARTMENT OF
EDUCATION

LOWER SECONDARY
SCHOOL CERTIFICATE
EXAMINATIONS
(LSSCE)

PRACTICAL
SKILLS

Wednesday

09th October 2013

Time allowed: 1 hour 30
minutes

Candidates are advised to
fully use the time allocated

PS

INSTRUCTIONS TO CANDIDATES:

(To be read out by the external invigilator before the start of the examination)

There are **36** questions worth **40** marks in this paper. Attempt **ALL** questions even if you are not so sure of some of the answers.

The Examination is divided into two parts:

PART A: Multiple Choice (Questions 1 to 20)

PART B: Short Answer (Questions 21 to 35)

PART C: Extended Response (Questions 36)

The Answer Sheet is part of the Examination Booklet. Take out the middle pages and remove the Answer Sheet by tearing along the perforation. You may use the blank sheet for rough work.

Write your candidate number, name and school name in the space provided on the Answer Sheet.

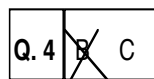
For each question in **PART A**, choose the best answer by writing the letter A, B, C or **D** in the space provided on the **ANSWER SHEET**.

For each question in **PART B** and **C** work out the answer and write the answer in the space provided on the **ANSWER SHEET**.

If you find a question very difficult, do not spend too much time thinking about it. Skip the question and go on with the rest of the paper. If you have time in the end, return to the difficult questions and think about them more carefully.

Write your answers in **BLUE** or **BLACK** ink (pen or biro).

If you decide to change an answer, make your correction as shown below so that it is clear to the markers what your final answer is. Do **NOT** use correction fluid on your answer sheet.



Hand in **BOTH** the Answer Sheet and the papers used for rough work at the end of the examination.

Extra time will NOT be allowed to complete the examination under any circumstances.

Penalty for cheating or assisting to cheat in national examinations is non-certification.

**DO NOT TURN OVER THIS PAGE AND DO NOT
WRITE UNTIL YOU ARE TOLD TO START**

PART A: MULTIPLE CHOICE (QUESTIONS 1 to 20) 20 MARKS

For each question, choose the correct answer and write A, B, C, or D in the space provided on the ANSWER SHEET.

QUESTION 1

In technical drawing, both vertical and sloping lettering are used.

However, sloping lettering are preferred to vertical because they

- A. have tidy appearance.
- B. occupy lesser space.
- C. are easier to print.
- D. can fit confined space.

QUESTION 2

The most appropriate geometric instrument used to measure angle is a

- A. protractor.
- B. compass.
- C. set square.
- D. try square.

QUESTIONS 3

Incorrect methods of lifting may lead to

- A. arm and thigh injuries.
- B. heart and respiratory injuries.
- C. back and muscle injuries.
- D. head and neck injuries.

QUESTION 4

Which activity requires a person to use force to lift, lower, push, pull, carry, move or hold any type of object?

- A. Manual handling
- B. Mechanical handling
- C. Portable handling
- D. Fixed handling

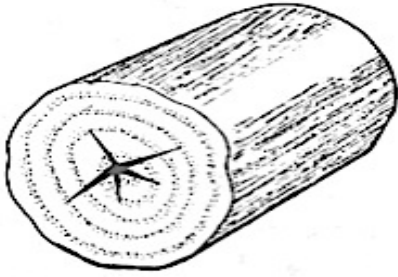
QUESTION 5

Standard plywood length and width are ordered in a range of

- A. 2400 mm X 1200 mm.
 - B. 1200 mm X 600 mm.
 - C. 300 mm X 2400 mm.
 - D. 1800 mm X 900 mm.
-

QUESTION 6

Shakes are splits or cracks (defects) that develop in timber.



The diagram shows an example of a _____ shake.

- | | |
|----------|------------------|
| A. heart | B. star |
| C. cup | D. external star |

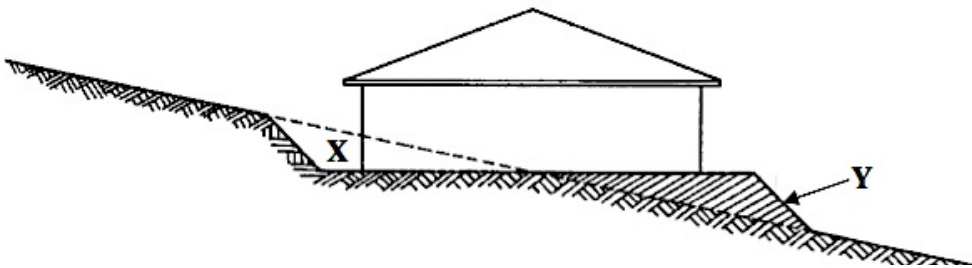
QUESTION 7

The roof of the building is divided into three main groups.

What are these three main groups?

- | | |
|-----------------------------------|-------------------------------|
| A. Gable, dual pitch, jerkin head | B. Gable, skillion, hip |
| C. Hip, jerkin head, gable | D. Skillion, jerkin head, hip |

For questions 8 and 9, consider the diagram below.

**QUESTION 8**

The part labelled X, is the area that is

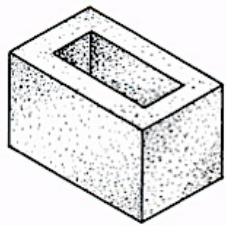
- | | |
|----------|------------|
| A. cut. | B. filled. |
| C. slab. | D. pegged. |

QUESTION 9

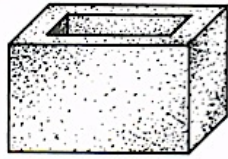
The part labelled Y, is the area that is

- | | | | |
|------------|----------|------------|---------|
| A. pegged. | B. slab. | C. filled. | D. cut. |
|------------|----------|------------|---------|

For questions 10 and 11, use the diagrams of the common pictorial drawings below.



P

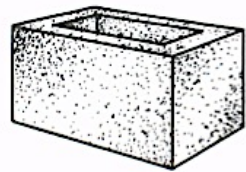


Q

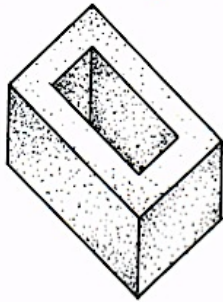
QUESTION 10

What is the name of the pictorial drawing **P**?

- A. Planometric
- B. Oblique
- C. Perspective
- D. Isometric



R



S

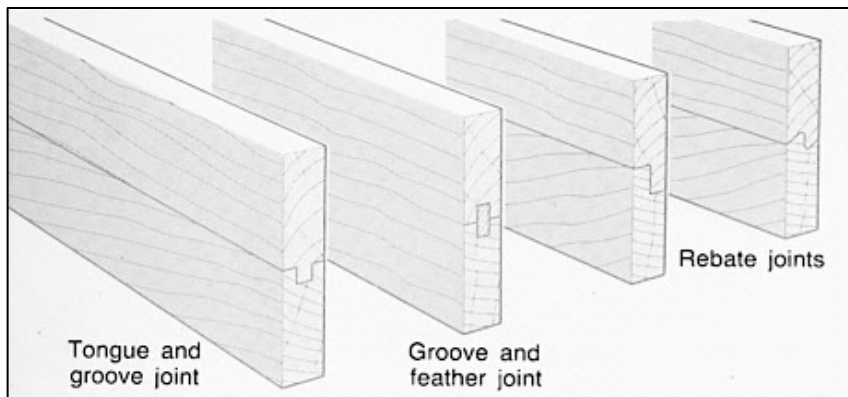
QUESTION 11

Pictorial drawing **Q** is known as _____ drawing.

- A. Perspective
- B. Isometric
- C. Oblique
- D. Planometric

QUESTION 12

Below are examples of widening joints.



Which of these joints is used for flooring?

- A. Rebate joint
- B. Groove and feather joint
- C. Tongue and groove joint
- D. Mitre joint

QUESTION 13

Try and mitre square measures angles at

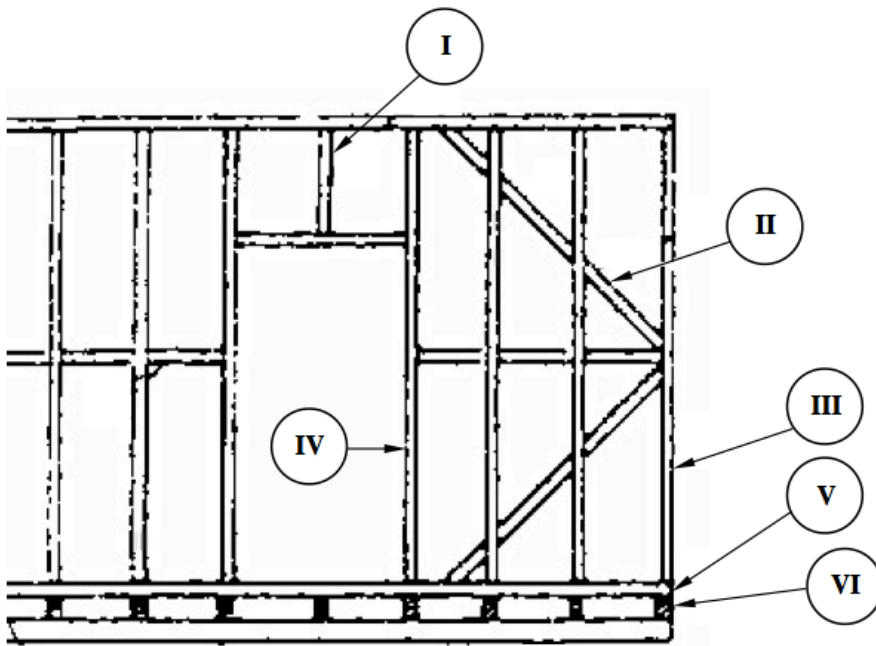
- A. 45° only.
- B. 30° and 60°.
- C. 90° only.
- D. 45° and 90°.

QUESTION 14

Ripsaw is used for cutting timber

- A. along the grain.
- B. across the grain.
- C. both along and across the grain.
- D. diagonally through the grain.

For questions 15 and 16, consider the building structure below.



QUESTION 15

Which labelled part is the jamb?

- A. III
- B. IV
- C. V
- D. VI

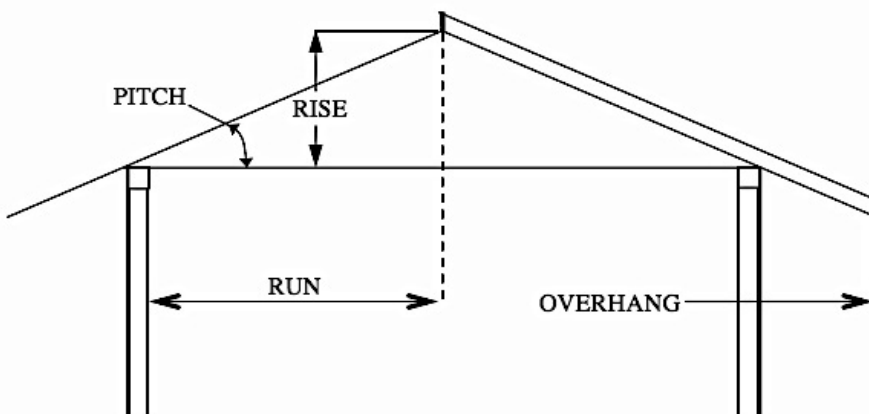
QUESTION 16

Which labelled part best suits this description – ‘these are load-carrying members that are on the floor joist and are also vertically joined to it’?

- A. III
- B. IV
- C. V
- D. VI

QUESTION 17

Below is the diagram of the truss with its components labelled.



The angle of inclination that the roof meets with the horizontal line is called

- A. rise.
- B. pitch.
- C. run.
- D. overhang.

QUESTION 18

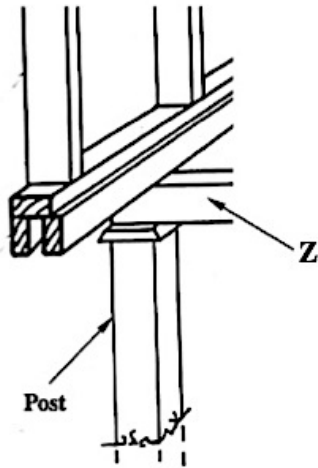
The basic purpose of codes of practice is to provide workers

- A. ways to work.
- B. rights to work.
- C. behaviour and attitude to work.
- D. common sense and acceptable ways to work.

QUESTION 19

The most essential factor in producing a high quality product is

- A. good preparation.
- B. sketching
- C. planning.
- D. construction.

QUESTION 20

What would be the correct timber size for the member of the floor structure labelled Z?

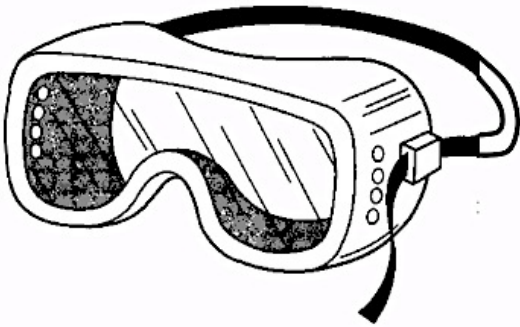
- A. 75 X 200 mm
- B. 50 X 75 mm
- C. 25 X 200 mm
- D. 50 X 50 mm

PART B: SHORT ANSWERS**(Questions 21 to 35)****5 MARKS**

For each question, write the correct answer in the space provided on the answer sheet.

QUESTION 21

The compass is a drawing instrument used for drawing circles and _____.

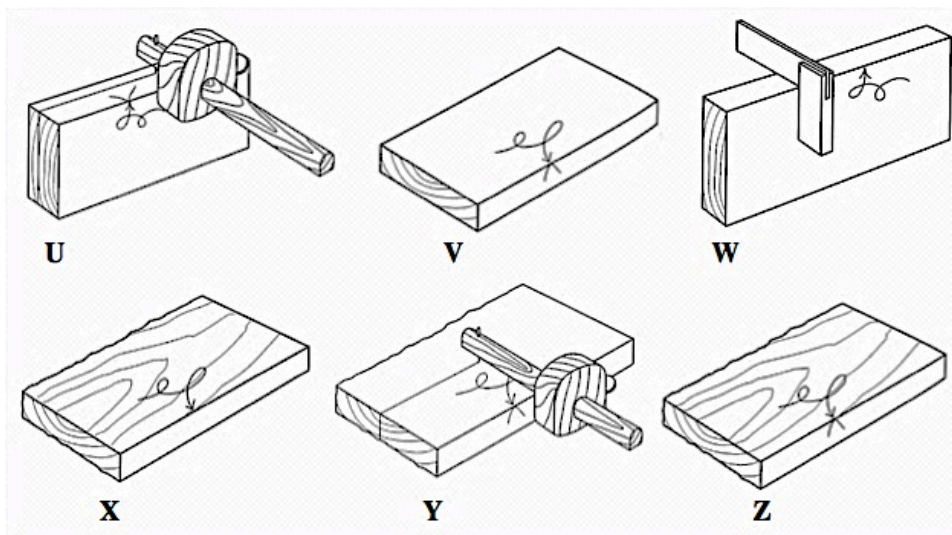
QUESTION 22

What is the name of this safety gear?

QUESTION 23

Apart from the claw hammer, which other tool can be used to pull out nails?

For questions 24 and 25, use the procedures in timber preparation below.

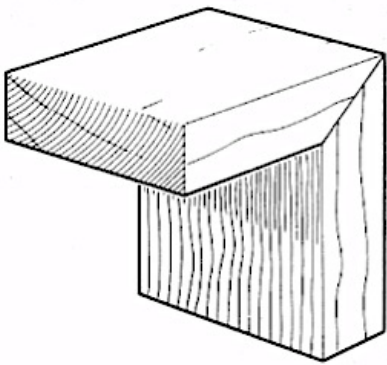
**QUESTION 24**

What is the name of the tool used in diagrams U and Y?

QUESTION 25

What is the tool used in diagram W?

For questions 26 and 27, refer to the diagram of the joint below.



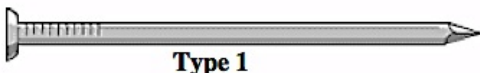
QUESTION 26

What is the name of the joint?

QUESTION 27

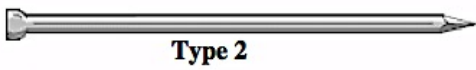
The two pieces of timber were initially cut at _____ degree before being assembled.

For questions 28 and 29, use the diagrams of the types of nails below.



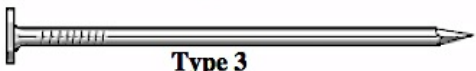
Type 1

QUESTION 28



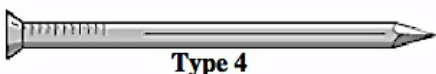
Type 2

In a building construction, most handymen prefer Type _____ nails.



Type 3

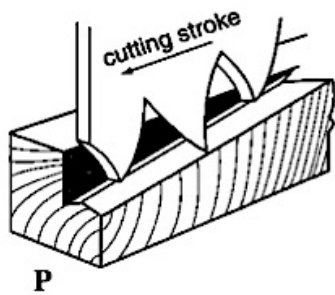
QUESTION 29



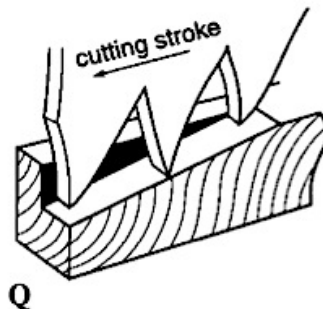
Type 4

Which of the nails is also known as flat head nail?

For questions 30 and 31, consider the diagrams below. The diagrams show two different cutting strokes of two popular saws.



P



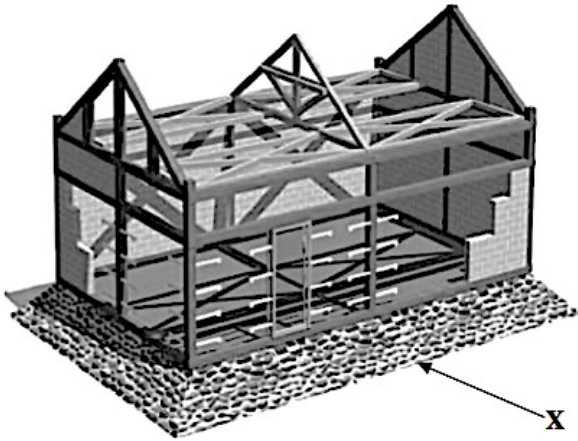
Q

QUESTION 30

Cutting action of a crosscut saw is shown in diagram _____.

QUESTION 31

Which diagram illustrates the cutting action of a rip saw?

QUESTION 32

Structure **X** is found under the footing of a building.
What is it called?

QUESTION 33

All the designing and drawings are normally done on a drawing board.

What is the name of the geometrical instrument that is used directly with the drawing board?

For questions 34 and 35, use the measuring tool below.

**QUESTION 34**

The measuring tool is known as a try and _____ square.

QUESTION 35

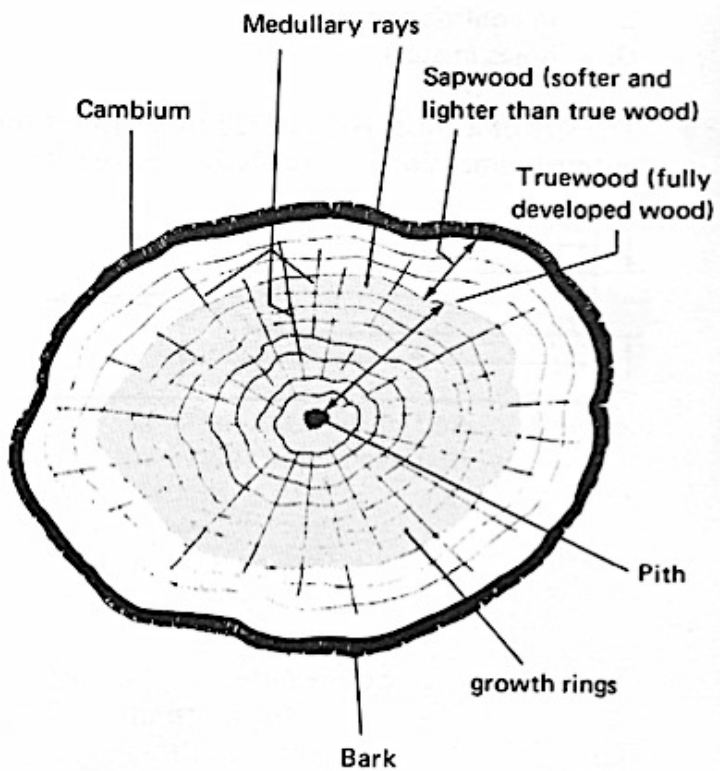
What is the largest angle that this tool can draw from an edge?

PART C: EXTENDED RESPONSE**5 MARKS**

For Question 36, work out the answer for each question and write the answer in the space provided on the answer sheet.

QUESTION36

Study the cross-section of a log below carefully.
Use its parts to match the definitions given below.



- I. The narrow layer of cells just under the bark. This is where increase in girth takes place.
- II. The cells on the outside of the heartwood. To convey minerals and moisture to the branches.
- III. This is the most useful part of the tree for conversion of timber into useful timber.
- IV. Protects the cambium from damage by animals, insects and extreme weathers.
- V. Original part of a tree where it started its life.

END OF EXAMINATION

**LOWER SECONDARY SCHOOL EXAMINATION – 2013
DESIGN & TECHNOLOGY SUBJECT FIELD**

SUBJECT – PRACTICAL SKILLS – ANSWER SHEET



MARKER 1

YEAR		PROV.		SCHOOL			CAND No.		
1	3								
NAME									
SCHOOL									

PART A: (Questions 1 to 20)

Write the letter of your answer next to each question below.

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PART B (Questions 21 to 35)

Write your answer next to each question below.

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PART C (Question 36)

Write your answer in the spaces below.

36	I	
	II	
	III	
	IV	
	V	



MARKER 2

DO NOT WRITE ON THIS PAGE

CAREFULLY TEAR ALONG THIS PERFORATION

THIS PAGE MAY BE USED FOR ROUGH WORK