

PRE-TECHNICAL SKILLS

1. GENERAL COMMENTS

The standard of the paper compared favourably with that of previous years and it was within the scope of the syllabus.

2. A SUMMARY OF CANDIDATES' STRENGTHS

Most candidates showed strengths in:

- (i) Good draughtsmanship;
- (ii) Production of neat and clear sketches;
- (iii) Provision of concise and straight to the point responses to questions;
- (iv) Adherence to the rubrics of the examination;
- (v) Efficient use of the time allotted for the paper.

3. A SUMMARY OF CANDIDATES' WEAKNESSES

Candidates demonstrated weakness in:

- (i) Their poor and illegible handwritings;
- (ii) Their inability to read and understand the questions and the poor command of the English Language;
- (iii) Inability to understand and use technical jargons.
- (iv) Inadequate knowledge in workshop processes.

4. SUGGESTED REMEDIES

To minimize candidates' weaknesses:

- (i) Candidates should be encouraged to read wide to improve upon their English Language usage;
- (ii) Teachers should endeavor to teach students workshop processes through practical lessons;
- (iii) Teachers should as much as possible use technical terms and jargons in their teachings and encourage candidates to use them.

5. **DETAILED COMMENTS**

QUESTION 1

- (a) State one reason why a dressmaker would use a double stitch for fastening on a stitch instead of a knot.
- (b) List two suitable methods each of preserving the following food items:
(i) plantain;
(ii) mango.
- (c) (i) Copy and complete the table below by providing one suitable instrument for carrying out each of the operations listed:

OPERATION	ONE SUITABLE INSTRUMENT
Drawing a horizontal line	
Drawing a circle	
Measuring an angle	

- (ii) Sketch the following geometrical solids:
() cylinder
() cone
- (d) (i) What is an exhibition?
(ii) Give two reasons why artworks are exhibited.
(iii) List two types of exhibitions.
(iv) State one major difference between the two types of exhibitions listed.
- (a) Most of the candidates were able to answer the question very well. However, a few candidates did not understand the terms “double stitch” and “knot” and therefore gave wrong answers.
- (b)&(c) Majority of the candidates who attempted this question performed very well.
- (d) Most of the candidates were able to explain the term exhibition and gave reasons why artworks are exhibited and listed two types of exhibitions. Majority however, could not state the major difference between the two types of exhibitions.

Required answer is:

General exhibition deals with all kinds of products, while specialized exhibition deals with a particular product.

QUESTION 2

- (a) **Figure 1 shows the isometric view of a wooden stand.**
- (i) **Draw full size the front view in the direction of arrow Z.**
 - (ii) **State the most suitable abrasive that can be applied on the work.**
- (b) **State one method of preventing pinning in files.**
- (c) (i) **Make a freehand pictorial sketch of the wooden float.**
(ii) **Label any two parts of the tool sketched in (c)(i).**
(iii) **State one use of the wooden float.**
- (d) (i) **State one way of preventing accidents in the workshop.**
(ii) **State two qualities of a good mortar.**
(iii) **Explain the ratio 1:6 in a mortar mix.**

- (a) Majority of candidates understood the question and drew the front view correctly and stated the most suitable abrasive. A few however reproduced the figure as solution.
- (b) Most of the candidates could not answer this question. They did not know what pinning is and therefore did not know how to prevent it. To prevent pinning in files, rub chalk on the surface of the file.
- (c) This question was very popular among candidates. Most candidates sketched the float and labelled the parts. A few candidates however could not label it.
- (d) This question was also very popular among the candidates. Very good answers were produced by the candidates who attempted it.

QUESTION 3

- (a) (i) **Make a freehand pictorial sketch of a flat chisel.**
(ii) **State one use of the flat chisel.**
(iii) **State one method of maintaining the flat chisel.**
- (b) **Figure 2 shows the sketch of a type of sheet metal joint.**
- (i) **State the name of the joint.**
 - (ii) **List one tool for cutting the sheet metal.**
 - (iv) **State one article that can be made with the joint.**

(c) Copy and complete the table below:

Name of tool	State one part of the tool	One use of the tool
(i) Hacksaw		
(ii) Soldering Iron		
(iii) Mortise chisel		

(d) State one reason each of the following operations:

- (i) glasspapering a piece of work made from wood;
- (ii) mixing turpentine with oil paint.

- (a) Majority of candidates could not sketch the flat chisel correctly. Most of them sketched the firmer chisel which is a woodwork chisel and therefore could not state the correct use and method of maintaining the flat chisel.
- (b) Very few candidates were able to answer this question correctly. Most of the candidates could not give the correct name of the joint; the tool for cutting the sheet metal and the use of the article.

The required answers are: the name of the joint is grooved lap joint; the tools for cutting sheet metal include shears/snips, flat chisel, sheet saw, and junior hacksaw.

The uses of the article include: milo tin, bucket, metal trunk, dustbin, etc.

(c)&(d) Majority of candidates were able to answer these questions very well.

QUESTION 4

- (a)
 - (i) Make a freehand pictorial sketch of a marking knife.
 - (ii) State one use of the marking knife.
 - (iii) State one method of maintaining the marking knife

(c) Copy and complete the table below:

Name of Material	One property each	One use each
(i) Wawa		
(ii) Polyvinyl Chloride (PVC)		
(iii) Clay		

Figure 3 shows a sketch of a sandcrete block.

- (i) **State the parts labelled P and Q.**
- (ii) **List two materials used for making the block.**
- (iii) **Re-arrange the following procedures for moulding the block in their correct order:**
 1. **tamp and use a wooden batten to strip off the excess mortar;**
 2. **batch sand and cement and mix thoroughly.**
 3. **remove and dry blocks.**
 4. **fill the mould box with mortar.**
 5. **add water and mix mortar.**
 6. **assemble the mould box and clean the internal surface.**

- (a) Majority of candidates were not able to distinguish between the marking knife and a kitchen knife. Majority sketched the kitchen knife and stated its uses at home. A few however sketched the marking knife and stated its use.
- (b) Most candidates copied the table but could not complete some portions correctly, especially the properties of the materials. A few were however able to complete it.
- (c) A very popular question among candidates. Most candidates were able to state the parts labelled and the materials for making the block. Majority of them were also able to re-arrange the procedure for moulding block correctly.