

3.2 WOOD WORK (444)

The 2022 KCSE examinations for wood work consisted of two papers namely Paper 1 (theory) and Paper 2 (Practical Project). The theory was worth 60% while practical was worth 40% of the final mark. Both papers followed the usual setting format as those of the previous years.

3.2.1 Candidates General Performance

The table below shows candidates' overall performance for the five-year period, from 2018 to 2022.

Table 11: Candidates overall performance in the years 2018, 2019, 2020, 2021 and 2022

| Year | Paper | Candidature | Maximum Score | Mean Score | Standard Deviation |
|------|---------|-------------|---------------|------------|--------------------|
| 2018 | Overall | 318 | 60 | 34.93 | 11.95 |
| | 1 | | 40 | 23.36 | 5.94 |
| | 2 | | 100 | 58.21 | 16.96 |
| 2019 | Overall | 389 | 60 | 43.61 | 9.20 |
| | 1 | | 40 | 29.03 | 4.71 |
| | 2 | | 100 | 72.49 | 13.31 |
| 2020 | Overall | 530 | 60 | 40.75 | 8.86 |
| | 1 | | 40 | 27.21 | 4.22 |
| | 2 | | 100 | 67.94 | 12.14 |
| 2021 | Overall | 581 | 60 | 43.02 | 10.05 |
| | 1 | | 40 | 28.75 | 5.81 |
| | 2 | | 100 | 71.77 | 14.11 |
| 2022 | Overall | 710 | 60 | 41.51 | 11.15 |
| | 1 | | 40 | 27.63 | 4.95 |
| | 2 | | 100 | 68.9 | 16.1 |

The following observations can be made from the above table

- (i) The candidature increased from 581 in 2021 to 710 in 2022.
- (ii) The mean score dropped from 71.77 in 2021 to 68.9 in 2022.
- (iii) The standard deviation also improved from 14.11 in 2021 to 16.1 in 2022.

3.2.2 Woodwork Paper 1 (444/1)

The questions which were reported to have been poorly responded to have been analyzed with a view to pointing out candidates' weaknesses and propose suggestions on some remedial measures that need to be taken in order to improve performance in future. The questions for discussions include question 7, 8, 10 and 12.

Question 7

(a) **Figure 1** shows a stopped groove for a housing joint.

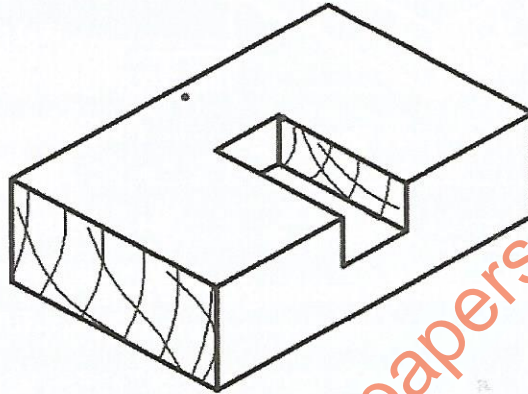


Figure 1

List the tools used to make the groove

Weaknesses

Most candidates could not list the tools to be used to make the groove.

Advice to Teachers

Teachers should thoroughly teach the topic of “Cutting tools” and explain explicitly the use of each tool.

Expected response:

Tools which can be used to make a groove for a housing joint.

- Try square
- Marking gauge
- Chisel
- Tenon saw
- Mallet
- Router plane

Question 8

Outline the procedure of cutting the work piece marked as shown in **Figure 2** using a hand saw.

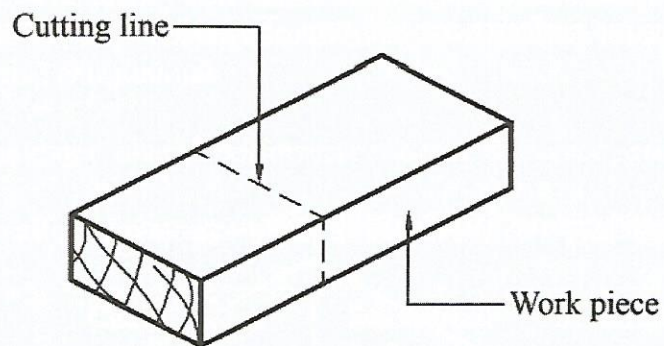


Figure 2

Weaknesses

Most candidates seemed not to understand the meaning of the term 'kerf'

Advice to Teachers

Teachers should teach thoroughly the topic of sawing and explain the different processes in cutting

Expected response:

Procedure of cutting the workpiece.

- Place the thumb on the line at the edge.
- Place a cross-cut saw at an angle.
- Draw the saw backwards to make a starting cut on the waste side.
- Complete the cutting at the full front thrust.

Question 10:

Figure 3 shows a regular hexagon of sides 20mm. Using F as the focal point, enlarge the figure in the ratio 5:3 and give the length of the new sides.

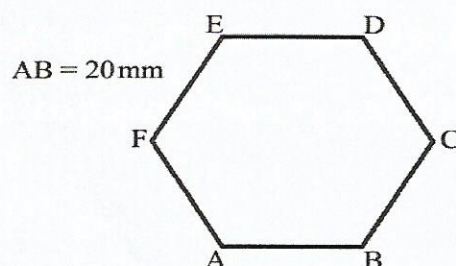


Figure 3

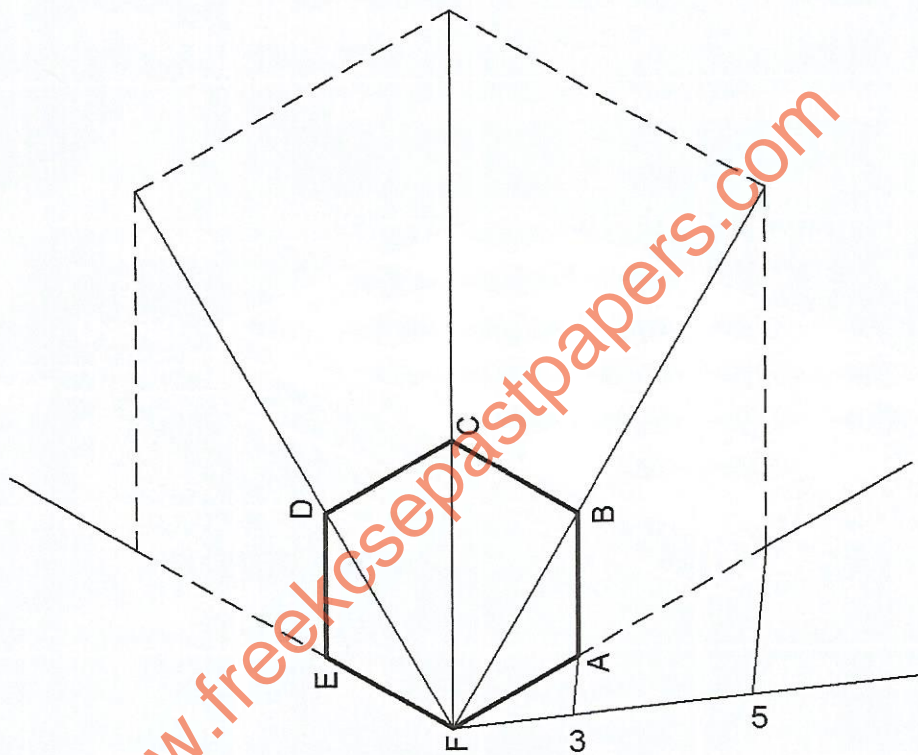
Weaknesses

Most candidates could not enlarge the figure in the ratio of 5:3 as given in the question

Advice to Teachers

Teachers to explain clearly to the students using real life situations the need to reduce and enlarge objects and give exercise in enlargement. They should clearly explain to students the relationship between scales and enlargement of drawings.

Expected response



Question 12

- Define the term overlay as used in woodwork.
- List four tools used in overlaying.
- Sketch and label a pictorial view of a table top decorated with an overlay.

Weaknesses

Most candidates confused between the processes of overlaying and inlaying

Advice to Teachers

Teachers should explain to the students the difference between overlaying and inlaying with real examples like tables or stools.

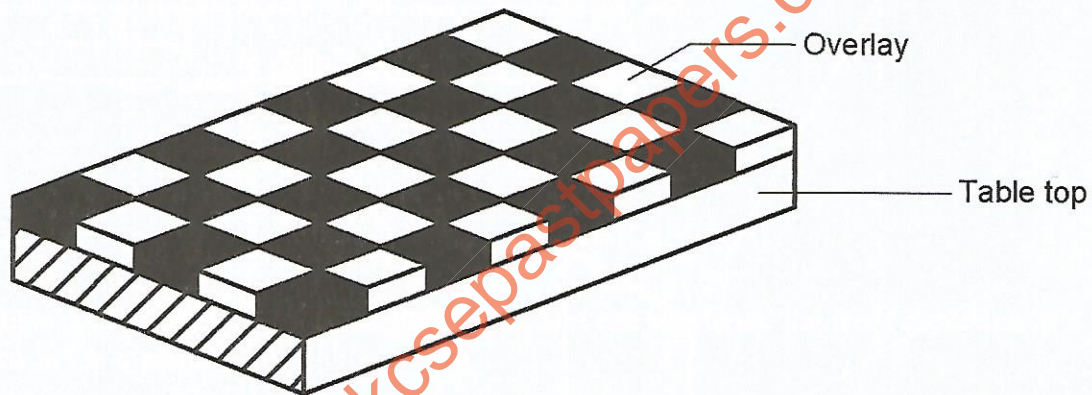
Expected response

Overlay: Is a method of decorating wood furniture by giving ornamental shapes made out of wood, metal or plastics on a wooden surface.

Tools used in overlaying:

- Chisel
- Mallet
- Coping saw
- Spoke shave
- Surform tool
- Rasp fil

Pictorial view of a table top decorated with an overlay.



3.2.3 Woodwork Paper 2 (444/2)

Like in the previous years, the council designed a suitable project for this level together with a comprehensive marking scheme. The subject teacher used the working drawings to supervise the fabrication of the project and the scoring guide to mark the candidate's projects. The marks were then uploaded onto the KNEC within the specified time as per the instructions given after revision due to the Covid 2019 pandemic.