

3.2 WOOD WORK (444)

The 2019 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.

Candidates General Performance

The table below shows candidates' overall performance for the six year period from 2014 to 2019.

Table 9: Candidates' overall performance for the six year from 2014 to 2019

Year	Paper	Candidature	Maximum Score	Mean Score	Standard Deviation
2014	1	330	60	26.54	8.62
	2		40	17.74	4.17
	Overall		100	44.23	11.91
2015	1	347	60	34.36	10.63
	2		40	22.98	5.89
	Overall		100	57.28	15.83
2016	1	276	60	25.37	5.76
	2		40	63.22	16.72
	Overall		100	64.58	12.69
2017	1	268	60	38.74	8.84
	2		40	25.85	4.87
	Overall		100	64.58	12.69
2018	1	318	60	34.93	11.95
	2		40	23.36	5.94
	Overall		100	58.21	16.96
2019	1	389	60	43.61	9.20
	2		40	29.03	4.71
	Overall		100	72.49	13.31

The following observations can be made from the above table:

- i) The candidature increased from 318 in 2018 to 389 in 2019.
- ii) The mean score improved 58.21 in the year 2018 to 72.49 in 2019. This is an indication that the performance in 2019 was better than of 2018.

3.2.1 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 2(b), 7(a), 10 & 14.

Question 2(b)

Explain the term decay as used in timber.

Weaknesses

Most candidates did not know that fungi causes decay in timber.

Advice to Teachers

Cover the syllabus fully to include materials.

Expected response

This is the decomposition of the wood due to the action of wood destroying fungi.

Question 7

(a) State two uses of each of the following planes:

- (i) Plough plane
- (ii) Rebate plane

Weaknesses

Most candidates seemed not to be familiar with the planes

Advice to Teachers

Teachers should teach more on tools used in the woodwork workshop.

Expected response

Uses of:

Rebate plane	Plough plane
<ul style="list-style-type: none"> - Cutting rebates. - Clearing Tenon shoulders. - Clearing the chamfer. <p style="text-align: right;">Any 2 x ½ = 1 mark</p>	<ul style="list-style-type: none"> - Cutting grooves. - Making rebates. - Levelling bottom of grooves. <p style="text-align: right;">Any 2 x ½ = 1 mark</p>

Question 10

Figure 5 shows an isometric view of a bridle joint. Sketch the exploded view of the joint

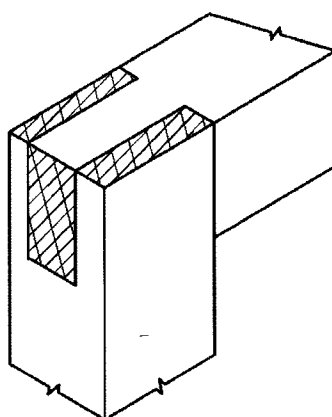


Figure 5

Weaknesses

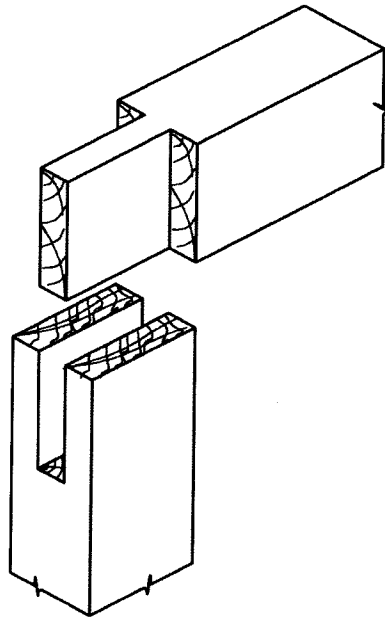
Most candidates seemed not to understand what is meant by an exploded view.

Advice to Teachers

Emphasis on sketching and explanation of the sketches including exploded views.

Expected response

BRIDLE JOINT (EXPLODED VIEW)



Question 14

- (a) Name three types of bench planes and give one use of each.

Weaknesses

Most candidates gave the special purpose planes instead of the bench planes.

Advice to Teachers

Cover the whole syllabus when teaching to include all the types of planes.

Expected response

- (i) **Smoothing plane**
Best for short lengths of wood and for final cleaning-up of a wood surface.
- (ii) **Jack plane**
Used for general purpose planning.
- (iii) **Try plane**
Designed to remove bumps and hollows from long pieces of wood

3.2.2 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.