**BUNAMFAN CLUSTER EXAMINATION – 2022**

**Kenya Certificate of Secondary Education**

**444/1 – WOOD WORK – Paper 1**

**June 2022 - 2 ½ hours**

**Name**…………………………………**Adm No**……

**Class**…………… **Date**……………………………

**INSTRUCTIONS TO CANDIDATES**

***You should have the following for this examination.***

**Answer booklet.**

* **Drawing Instruments.**
* **Drawing Paper size A3**

***SECTION A: Answer all the questions.***

***SECTION B: Answer question 11 and any other 3 questions.***

**This paper consists of 12 printed pages.**

**Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing.**

**SECTION A (40 MARKS)**

***Answer all the questions in this section in the space provided***

1. a) List four functional requirements of woodwork workshop. (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

b) State three causes of accidents relating to the use of hand tools in a woodwork workshop. (3 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Explain the cause of each of the following classes of fire.
2. Class A fire (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Class B fire (2 marks)

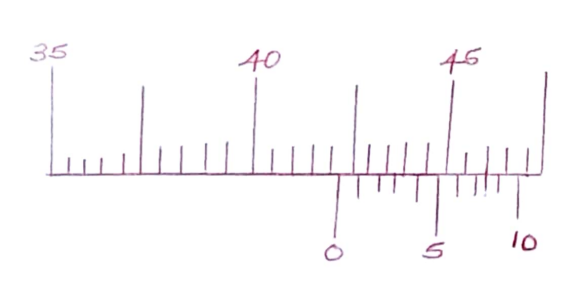
….……………………………………………………………………………………

….…………………………………………………………………………………..

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Figure 1 shows a vernier caliper reading



Determine the value of the reading (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. State four practices that demonstrate the proper use of a cross-cut saw when cutting timber. (4 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….………………………………………………………………………………….

5 a) State two functions of the knob on a bench plane (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

b) Sketch the plan of the head to show the shape of the slots on the following types of screw.

1. Philips recess (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Coach recess (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

6 a) Sketch and label a try square (2 marks)

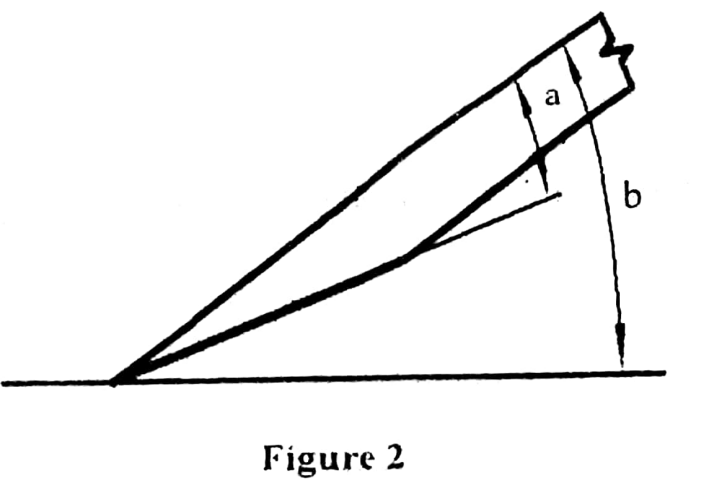
b) State two uses of a try square (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Figure 2 shows the cutting edge of a chisel



1. Name the angles labelled a and b (1 mark)

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Give the recommended value for each of angles in 7(a) (2 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Sketch each of the following types of treatment given to the edges of tables

(3 marks)

1. Chamfer

….…………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. Bevel

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

1. State four characteristics of varnish applied on a dry wooden surface (4 marks)

….……………………………………………………………………………………

….……………………………………………………………………………………

….……………………………………………………………………………………

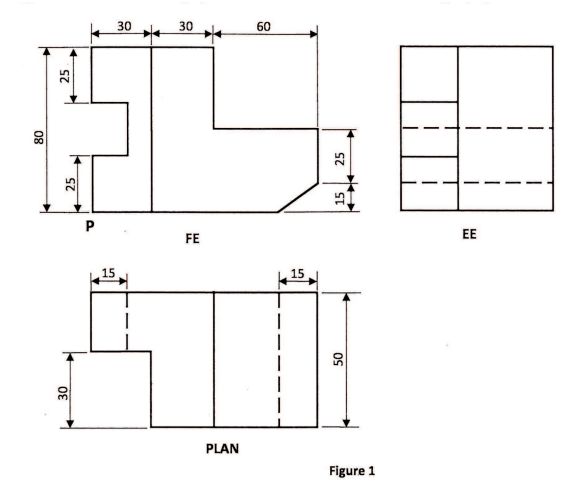
….……………………………………………………………………………………

1. Print the phrase ‘God is Good’ using the vertical capital letters of uniform 7mm height and word spacing of 5mm. (5 marks)

**SECTION B (60 marks)**

***Answer question 11 on A 3 size paper provided and any other three questions from this section in the spaces provided . Candidates are advised Not to spend more than 25 minutes on question*** 11.

11.Figure 3 shows a block in orthorgraphic view, Draw the block in an isometric projection full scale with P the lowest point. (15 marks)



12 (a) Outline the procedure of making a groove in a workpiece using a plough plane. (7 marks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

b) Using labelled sketches, show the difference between an auger bit and a twist drill bit. (6 marks)

(c) State two precautions to be observed when using a steel tape measure.

(2 marks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

13. (a) State four precautions to be observed when using a steel tape measure.

(4 marks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(b) State four purposes of a primer coat as used in painting. (4 marks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

c) Outline the procedure of marking out a piece of wood to size using a marking gauge. (7 marks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

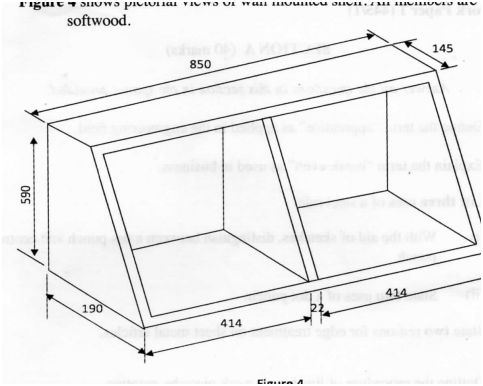
14.(a) With the aid of a labelled sketch, show the pocket screw method of ﬁxing table top to rails. (5 marks)

(b) State six beneﬁts of starting a small scale business in rural areas. (6 marks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

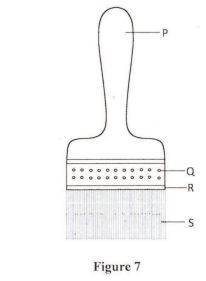
(c) Other than food, state and explain two favorable conditions for fungal growth in timber. (4 marks) ……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

15(a) Figure 4 shows pictorial views of wall mounted shelf. All members are 22 mm thick softwood.



Prepare a cutting list for purchasing the timber required for the shelf. (9 marks)

(b) Figure 5 shows a paint brush.



1. Name the parts marked P, Q, R and S.

……………………………………..

…………………………………......

……………………………………..

…………………………………….

(ii) State the function of each part. (6 marks)

P”……………………………………………………………………………………Q”……………………………………………………………………………………R”……………………………………………………………………………………S”……………………………………………………………………………………

**THIS IS THE LAST PRINTED PAGE**