**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)

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

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

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1. Class B fire (2 marks)

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1. Figure 1 shows a vernier caliper reading



Determine the value of the reading (2 marks)

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

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

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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)

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1. Coach recess (2 marks)

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

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

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1. Figure 2 shows the cutting edge of a chisel



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

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

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

 (3 marks)

1. Chamfer

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1. Bevel

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

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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)

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 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)

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

 (4 marks)

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

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

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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)

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 (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.

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

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

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