**EAGLES’ WINGS HIGH SCHOOL, LUKAYA**

END OF TERM 1 EXAMINATION, 2024

**S.1 Physics**

1 Hour 30minutes

**INSTRUCTIONS**

* This examination paper consists of ***five*** items. Answer ***all*** items
* Write all your answers in the spaces provided
* For answers involving calculations, all working must be clearly shown

1. Due to financial constraints at home, Joan joined secondary school education late. She missed many important introductory concepts about physics. She finds it too difficult to understand what physics is all about, and has decided to come to you for help.

As a senior one learner who has obtained adequate introductory knowledge about physics, briefly discuss for your colleague what you know about the subject and its applicability in our daily life. ***(10 scores)***

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1. Several accidents have been reported to have taken place in the physics laboratory of a certain school this term. These accidents took place during practical lessons when students were carrying out experiments. They caused damage and loss of apparatus as well as injuring some students.

As a physics learner;

1. Inform the school administration on what could have caused these accidents

***(5 scores)***

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1. Advise the school administration on what they can do to prevents such accidents from happening again ***(5 scores)***

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1. Mzee James intends to install tiles on the floor of his house. The house has four rooms, each with dimensions 6mX5m. He wants to buy tiles measuring 50cmX50cm each. However, he lacks the knowledge about measurements and does not know the number of tiles he needs to complete the floor. He has come to you for guidance.

Using the knowledge of physics;

1. Advise Mzee James on the number of tiles he needs to complete the floor of his house

***(6 scores)***

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1. These tiles are usually sold in boxes. If each box contains 20 tiles and costs UGX 150,000;
2. How many boxes of tiles should he buy? ***(2 scores)***

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1. Advise him on the total cost of the tiles ***(2 scores)***

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1. Patrick dropped two objects **A** and **B** into a pond of water. One object floated while the other one sank into water. Object **A** was cylindrical in shape with mass 4Kg, diameter 10cm, and length 40cm. Object **B** was in form of a cuboid with mass 0.15Kg, and dimensions 10cmX6cmX5cm. He is confused about the magic behind what he saw.

As a physics learner, Carryout relevant calculations and use them to explain to him what happed. State the reason why it happened like that.

***(Use density of water=1000Kgm-3 or 1gcm-1)***  ***(10 scores)***

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1. (a) Express the following in standard form ***(2 scores each***)
2. 0.00017

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1. 20300000000

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1. 99200

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(b)Work out and the following and round off the result to 3 significant figures ***(2 scores each)***

1. 22470001X0.0000859522

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1. 0.2092430X48393.92993

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