**NAME:…………………………………….……………INDEX ……………..…..DATE……..……..**

**SCHOOL:.………………………………………………..……… SIGNATURE……………………**

232/1

PHYSICS

Jume 2018

1 HOUR

**DAKU SECONDARY SCHOOL**

*Kenya Certificate of Secondary Education (K.C.S.E)*

232/1

PHYSICS

June 2018

1 HOUR

**INSTRUCTIONS TO CANDIDATES**

1. Write your name, index number and name of your school in the spaces provided above.
2. Sign and write the date of the examination in the spaces provided.
3. Attempt **ALL** questions in sections A and B.
4. All your answers must be written in the spaces provided in this question paper.
5. All working must be clearly shown.
6. Non programmable silent electronic calculators and KNEC mathematics table may be used except where stated otherwise
7. Take: Acceleration due to gravity g =10 MS-2

**For Examiner’s Use Only**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Question** | **Maximum Score** | **Candidates’ Score** |
| A | 1-20 | 50 |  |
| B |  |  |  |
| **50** |  |

*This paper consists of* ***6 p****rinted pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*

**SECTION A: (50 MARKS)**

*Answer ALL the questions in the spaces provided.*

1. Define derived physical quantity (1 Mark)

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1. Define time and state its SI unit (2 Marks)

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1. Define force and state its SI units (2 Marks)

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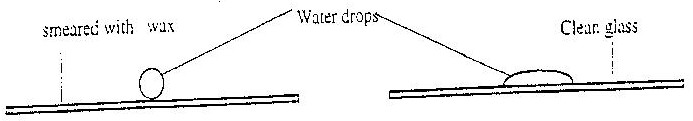
1. State any two contact and two non-contact forces. (4 Marks)

|  |  |
| --- | --- |
| **CONTACT FORCES** | **NON-CONTACT FORCES** |
| 1. |  |
| 2. |  |

1. Differentiate between cohesive and adhesive forces (2 Marks)

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1. The following shows the drops of water on a clean surface and the waxed surface.



Explain the difference in the shapes of the water. (2 Marks)

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1. Define pressure and state its SI unit. (2 Marks)

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1. State any two applications of pressure in liquids. (2 Marks)

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1. (a). A diver is 20m below the water surface in the sea. Given that the density of sea water is 1030kgm-3 and g=10NKg-1, calculate the pressure on the diver due to water. (3 Marks)

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b). if the atmospheric pressure is 100 000pa, calculate the total pressure on the diver. (2 Marks)

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1. Explain briefly how the braking system of a car works. (3 Marks)

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1. The following shows a simple hydraulic lift.

4 cm2

200 N

36 cm2

Calculate the weight M which balances the lift. (3 Marks)

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1. State any five differences between mass and weight. (5 Marks)

|  |  |
| --- | --- |
| **MASS.** | **WEIGHT.** |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4 |
| 5. | 5. |

1. Determine the resultant force of the following two vectors. (2 Marks)

15 N

9 N

1. What is matter? (1 Mark)

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

1. Define diffusion. (1 Mark)

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1. State any two factors which affect the rate of diffusion in fluids. (2 Marks)

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1. Define Brownian motion (1 Mark)

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1. By drawing a suitable diagram, show how solids, liquids and gases differ from one another.

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1. Define the following terms. (3 Marks)
   1. Vapourization

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

* 1. Condensation

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

* 1. Sublimation.

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1. In the following figure, ammonia gas and acid gas diffuse and react to form a white deposit on the walls of the glass tube. The deposit forms nearer end B.

Ammonia white Acid gas

Gas deposit

i). which gas diffused faster? (1 Mark)

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

ii) how does the rate of diffussion depend on the size and mass of a gas? (1 Mark)

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

iii) if the experiment was performed at a higher temperature, would you expect it to take longer or shorter time to form the deposit? Explain. (2 Marks)

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