**PHYSICS**

**TIME: 1 HOUR.**

**NAME………………………………………………………………………**

**ADM NUMBER……………………………**

***Attempt ALL the questions in the spaces provided. (40 marks)***

1. A stopwatch started 0.36s after the start button was pressed. The time recorded using a stopwatch for an athlete running from point A to B was 12.86s. Determine the actual time taken by the athlete. (2 marks).

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**2.** State the relationship between Physics and Mathematics. (1 mark)

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3. Outline FIVE laboratory safety rules. (5marks).

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4. Fill in the table below. (6 marks)

|  |  |  |
| --- | --- | --- |
| Basic quantity | SI unit | Symbol. |
| Length |  | M |
| Mass | Kilogram |  |
| Time. | Second | S |
| Electric current |  | A |
| Temperature |  | K |
| Light intensity. | Candela. |  |
| Amount of substance. |  | Mol. |

5. Outline any THREE career opportunities in physics. (3 marks)

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6. State and explain any THREE branches of physics. (6 marks)

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7. Define physics. (2marks).

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8. Define the following terms as used in physics. (6marks).

a) Length.

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b) Area

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c) Volume.

………………………………………………………………………………………………

d) Mass.

……………………………………………………………………………………………….

e) Density.

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

f) Relative density.

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9.100 cm3 of fresh water of density 1,000 kgm-3 is mixed with 100 cm3 of sea water of density 1030 kgm-3.

Calculate the density of the mixture. (4marks)

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10. Distinguish between basic and derived quantities giving an example I each case. (4marks)

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11. The figure below shows a measuring cylinder containing some water.



Another 3cm3 of water was added in to the cylinder from a burette delivering volumes from 0cm3 to 50 cm3 Record in the spaces provided the **new reading** indicated on each vessel. (2 marks)

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