

# **FORM ONE TERM ONE EXAMS 2017**

**PHYSICS**

**TIME: 2 ½ HOURS**

**FORM ONE**

**SCHOOLS NET KENYA**

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1. What is meant by the term 'basic quantities' (1 mk)  
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2. Define length and state its SI unit (1 mk)  
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3. Name two types of errors and state how each is minimized when measuring the length of objects. (4 mks)  
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4. Describe how you would estimate the thickness of one paper in a given book if you are provided with a metre ruler only (3 mks)  
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5. State three limitations of using the displacement method when determining the volume of an irregular solid (3 mks)  
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6. A wire of radius 6 mm and length 400 is melted into a sphere. Calculate the radius of the sphere in centimeters. (3 mks)  
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7. Convert  $5 \text{ g/cm}^3$  to the SI unit. (2 mks)
8. Using the following masses and volumes of substances, calculate their densities in SI unit.

a) 200 mg, 0.0004m<sup>3</sup> (2 mks)

b) 0.86 kg, 1000000 mm<sup>3</sup> (2 mks)

9. 100 cm<sup>3</sup> of water is mixed with 50 cm<sup>3</sup> of concentrated acid of density 1.2 g/cm<sup>3</sup>. Assuming no change in volume, find the average density of the mixture. (Take density of water = 1.0 g/cm<sup>3</sup>)

(4 mks)

10. A density bottle weighs 70 g when filled with water and 94 g when filled with a liquid A. Find the density of liquid A given that the density of water is 1000 kg/m<sup>3</sup>. (5 mks)

11. State four effects of forces (4 mks)

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12. State three types of forces that act between objects that are not in contact (3 mks)

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13. Describe two types of molecular forces

(4 mks)

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14. State three areas of application of capillary rise.

(3 mks)

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15. Distinguish between mass and weight and state SI units

(4 mks)

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16. Differentiate between vector quantities and scalar quantities

(2 mks)