

GAYAZA HIGH SCHOOL TERM 1 2014 S.1 PHYSICS HOLIDAY WORK

Instructions

- Attempt all questions in both sections A and B
- Circle the correct alternative for questions in section A and write in the spaces provided for questions in section B.

• SECTION A

1. Which of the following is the correct definition of physics?
 - A. The study of matter in relation to energy.
 - B. The study of physical quantities.
 - C. Its a branch of science that deals with materials.
 - D. Its branch of science that concerned with the study of non living things.
2. Which one of the following is not a basic quantity?
 - A. weight
 - B. Mass
 - C. Time
 - D. Length
3. One of the following is a branch of physics.
 - A. physical quantities
 - B. measurements
 - C. electricity
 - D. volume
4. One of the following can be used to measure volume of a liquid;
 - A. weighing scale
 - B. micrometer screw gauge
 - B. measuring cylinder
 - D. eureka can
6. Convert the length 52400cm to km
 - A. 52km
 - B. 5.24km
 - D. 0.524km
 - D. 5240000000km
7. A Micrometer screw gauge is used to determine the diameter of a circular object. The sleeve reading is noted as 4.5mm while the thimble reading is 35divisions. The diameter of the object is
 - A. 8.00mm
 - B. 4.85cm
 - C. 4.535mm
 - D. 4.85mm
8. The dimensions of a blackboard are 2.0m x 1.5m. The area of this blackboard in centimetres is

- A. 3.0cm^2 B. 30000cm^2 C. 3000cm^2 D. 300cm^2
9. A plastic object has a mass of 600g and when immersed in a measuring cylinder containing water, the water level rises from 25cm^3 to 40cm^3 . The density of this plastic material is
- A. 15gcm^{-3} B. 24gcm^{-3} C. 40gcm^{-3} D. 0.025gcm^{-3}
10. A beam balance is the instrument used to measure
- A. density B. mass C. volume D. weight
11. Which of the following properties of a solid would change if it were taken from the earth to the moon?
- A. mass B. volume C. weight D. density
12. Which of the following can be used to measure diameter of a bicycle spoke accurately?
- A. micrometer screw gauge B. vernier callipers
C. metre rule D. tape measure
13. Which of the following is not an S.I unit symbol for a fundamental quantity?
- A. kg B. m C. s D. ms^{-1}
14. Which one the following rules does not apply when counting significant figures?
- A. All non zero numbers are significant.
B. A zero between two non zero numbers is significant
C. A zero between two non zero numbers is not significant
D. zeros which are used only to locate the decimal point for example in 0.0067 are non significant
15. Find the volume of milk that can be contained in a hemispherical calabash of radius 7cm.
- A. $\frac{1}{3}\pi \times 7 \times 7 \times 7\text{cm}^3$ B. $\frac{4}{3}\pi \times 7 \times 7 \times 7\text{cm}^3$
C. $\frac{2}{3}\pi \times 7 \times 7 \times 7\text{cm}^3$ C. $\pi \times 7 \times 7 \times 7\text{cm}^3$

SECTION B

(Write the answers in the spaces provided.)

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c) Convert

i) 672kgm^{-3} to gcm^3

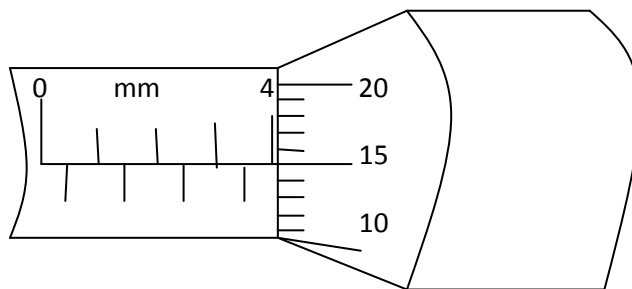
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ii) 1gcm^{-3} to kgm^3

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18.(a) In the space below draw a labelled diagram of a micrometer screw gauge.

b)



The figure above shows a micrometer screw gauge in use. State the reading shown by this instrument.

19. (a) convert the following quantities as required.

i) 24 days to seconds.

ii) 65km^2 to m^2

b) (i) Write **56375** to **3 significant figures**

ii) Write 3470000 in scientific form

20. (a) Define volume and state its S.I unit.....

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b) Find the volume of a cylindrical syringe of length 10cm and diameter 4.8cm

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c) Describe an experiment to determine the volume of a small stone.....

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END