

END OF TERM 1 EXAM 2018

S.1 PHYSICS

TIME 2 HRS

NAME.....

INSTRUCIONS:

- **Attempt all questions in both sections**
- **Proper display of all necessary working is required**

SECTION A

1. Which of the following is not a basic unit?
 - A. Kilograms
 - B. Newton
 - C. Second
 - D. Meter
2. The three fundamental quantities are?
 - A. Density, mass and time
 - B. Length, time and mass
 - C. Length ,time and weight
 - D. Volume, temperature and weight
3. Which of the following is a vector quantity?
 - A. Speed
 - B. Distance
 - C. Temperature
 - D. Force
4. Indicate which of the following materials does not retain magnetism permanently
 - A. Soft iron
 - B. Stainless steel
 - C. magnetic force
 - D. force
5. A material that is slightly repelled by a magnetic field is called?
 - A. A ferromagnetic material

- B. Diamagnetic material
 - C. Paramagnetic material
 - D. Conducting material
6. 44g of salt of density 2.2g/cm^3 are dissolved in 100g of water. What is the density of the salt solution if the resulting volume of the solution is the same as the volume of salt and water together?
- A. 1.2g/cm^3
 - B. 1.44g/cm^3
 - C. 1.80g/cm^3
 - D. 2.00g/cm^3
7. When north poles of two magnets are brought close together, there will be
- A. A downward force
 - B. A force of attraction
 - C. No force
 - D. A force of repulsion
8. Density is defined as the ratio of;
- A. Mass to density
 - B. Volume to mass
 - C. Mass to volume
 - D. Relative density to volume
9. Magnetism at the center of the bar is ;
- A. Minimum
 - B. Maximum
 - C. Zero
 - D. Greater than at the poles
10. A vernier calipers measures distance to the least;
- A. Millimeter
 - B. Centimeter
 - C. Kilometer
 - D. Hectometer

SECTION B

11. (a) Define the term density.

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(b) State three uses of density

(i).....

(ii).....

(iii).....

(c) The mass of an empty density bottle is 32g. It's mass when full of water is 56g. It's mass when full of liquid x is 45g. Calculate;

(i) The relative density of liquid x

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(ii) The density of the liquid

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12.(a)What is meant by the volume of a substance?

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(b) The volume of a solution as observed in a beaker is 27cm^3 . Convert this volume to m^3

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(c) Calculate the height of a triangle whose area is 24cm^2 and with a base of 6cm

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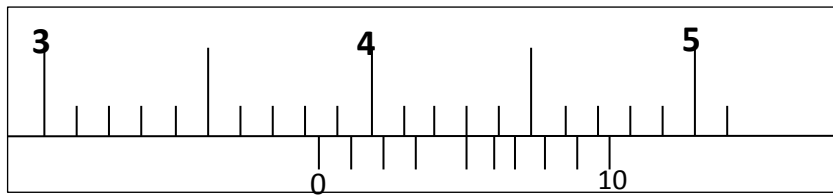
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13.(a) Define a fundamental quantity

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(b) What is the reading of the vernier calipers shown below?



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(c) The sleeve reading of a micrometers screw gauge is 15.50mm. Its thimble reading is 0.12mm.

(i) What is its final reading?

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(ii) Convert the final reading into meters.

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(iii) Draw a diagram of a micro meter screw gauge representing the reading in (i) above.

14.(a) What is meant by magnetism?

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(b) Give two types of magnets

(i).....

(ii).....

(c) Describe how a material can be magnetized by single touch method.

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(d) State two methods of demagnetizing a magnet

(i).....

(ii).....

15.(a) Differentiate between hard magnetic materials and soft magnetic materials.

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(b) Give three examples of permanent magnets

(i).....

(ii).....

(iii).....

(c) Draw a well labeled diagram showing how a material can be magnetized electrically

THE END