

END OF TERM ONE EXAMINATIONS

PHYSICS S.1

TIME: 2HOURS

Instructions:

- Attempt all 20 objectives in section A by putting a letter in the answer grid provide
- Section B is compulsory
- Neat and good hand writing is needed
- Pass mark is 80%

Section A

ANSWER GRID

1.		6.		11.	
2.		7.		12.	
3.		8.		13.	
4.		9.		14.	
5.		10.		15.	

1. Which one of the following is a derived unit
 - A. Newton
 - B. Kilogram
 - C. Metres
 - D. Seconds
2. The width of a meter rule is accurately measured by a
 - a. micrometer screw gauge
 - b. vernier caliper
 - c. tape measure
 - d. meter rule
3. The force that keeps a body moving at constant speed in a circle is
 - a. gravitational force
 - b. centrifugal force
 - c. centripetal force
 - d. tensional force
4. Convert 25cm^2 to m^3
 - a. 2.5×10^5
 - b. 2.5×10^{-5}
 - c. 2.5×10^{-1}

- d. 2.5×10^2
5. Which one of the following groups consists of vectors only
- Momentum, acceleration, work, energy
 - Speed, velocity, displacement, energy
 - Displacement, velocity, acceleration, force
 - Velocity, work, power, momentum
6. A force of 10N acts on a body and produces an acceleration of 2ms^{-2} . The mass of the body is
- 0.2 kg
 - 5.0kg
 - 20.0kg
 - 50.0kg
7. The term given to physical quantities used to define other quantities is
- Scalar quantities
 - Vector quantities
 - Fundamental quantities
 - Derived quantities
8. A body of mass 1500g is placed on a planet where the acceleration due to gravity is two-fifth that of the earth. Find the weight of a body on planet (Acceleration due to gravity = 10ms^{-2})
- $\frac{1500 \times 2 \times 10}{100 \times 5}$
 - $\frac{1500 \times 10}{5}$
 - $\frac{1500 \times 5 \times 10}{100 \times 2}$
 - $\frac{1500 \times 2 \times 10}{5}$
9. The purpose of treads on tyres is to make them
- Attractive
 - Stronger
 - Reduce friction
 - Grip the road surface
10. Forces of 10N, 8N and 4N act on objects, as shown above, find the magnitude of resultant force and
- 10.0N
 - 16.1N
 - 22.0N

- d. 100.on
11. A body of mass 30kg weighs 60n /on planet x which one of the following statements is true?
- The acceleration due to gravity on X is greater than that on earth
 - The mass of the body is greater on x than it is on earth
 - The acceleration due to gravity on x is less than it is on earth
 - The mass of the body is less on x than it is on earth.
12. A spherical ball has a radius of 3cm. Find its volume in m^3
- $\frac{4 \times 27}{3 \times 10^6}$
 - $\frac{\pi \times 27}{4 \times 10}$
 - $\frac{4 \times 106}{27 \times}$
 - $\frac{4 \times 100 \times 3}{27}$
13. The amount of space occupied by an object is
- Mass
 - Weight
 - Volume
 - Density
14. A set of apparatus that is suitable for measurement of the volume of an irregular object includes
- Over flow can, measuring cylinder, irregular object and strong
 - Measuring cylinder, irregular object, overflow can, flask
 - Over flow can, irregular object, string, retort stand and burette
 - Burette, overflow can, irregular object, string, measuring cylinder, retort stand
15. Length, mass and current
- Units of measurement
 - Derived quantities
 - Fundamental quantities
 - Measured in meters, kilograms and amperes

SECTION B

(Put answers in space provided)

16. (a) What is physics?

- (b) List down four branches of physics
 - (c) Give four reasons why you study physics
17. (a) What is force and state its S.I units
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- (b) There forces act on a particle as shown in figure below
Find the resultant force acting on the particle
 - (c) Give the reading of the instrument below
18. (a) (i) Convert 45ml to m^3
- (ii) Convert 0.0028tonnes to grams
 - (b) List down four instruments used to measure volume
 - (c) Find the volume of wooden block in m^3