

JOY INTERNATIONAL COLLEGE

A CHRISTIAN CO-EDUCATIONAL BOARDING INSTITUTION

KM 12 KADUNA-ABUJA EXPRESS WAY KADUNA

SECOND TERM REVIEW QUESTION 2

CLASS: SS2

DATE: APRIL 2020

SS2 PHYSICS HOME WORK

TOPICS	CONTENTS	OBJECTIVES
SCALARS AND VECTORS	<ul style="list-style-type: none">-concept of vectors-concept of scalars-vector representation-addition of vectors-resolution of vectors, components-resultant of more than two vectors	<p>At the end of the lesson, the students should be able to</p> <ul style="list-style-type: none">-explain the concept of vectors-explain the concept of scalar-explain addition of vectors-explain the resolution of vectors and its components
MOTION	<ul style="list-style-type: none">-speed velocity and acceleration-equations of uniformly accelerated motion-motion under gravity	<p>At the end of the lesson, the students should be able to</p> <ul style="list-style-type: none">-differentiate between the speed and acceleration-define instantaneous speed and velocity-explain distance from velocity-time graph-explain other types of velocity-time graph-explain motion under gravity

REVISION QUESTIONS FOR SCALARS AND VECTORS

1. Which of the following is not a vector quantity

- A. Speed B. velocity C. force D. acceleration

2. Which of the following is not a scalar quantity

- A. weight B. density C. mass D. speed

3. A body of mass 20kg is set in motion by two forces 3N and 4N acting at right angles to each other. Determine the magnitude of its acceleration

- A. 0.15m/s^2 B. 2.25m/s^2 C. 1.15m/s^2 D. 0.25m/s^2

4. A man walks 8km North and then 5km in a direction 60° East of North. Find the distance from its starting point

- A. 11.36km B. 12.36km C. 13.00km D. 14.36km

5. What is the magnitude of the resultant of the resultant of two forces 20N and 15N inclined at 90° to each other?

- A. 15N B. 25N C. 40N D. 10N

6. A motor vehicle is brought to rest from a speed of 15m/s in 20 seconds. Calculate the retardation
- A. 0.75m/s² B. 1.33m/s² C. 5.00m/s² D. 7.50m/s²
7. Increase in velocity with time is called
- A. retardation B. acceleration C. instantaneous velocity D. Speed
8. In motion under gravity, at maximum height, the final velocity is
- A. one B. two C. zero D. infinite
9. A moving body accelerates when it
- A. changes its direction at constant speed B. maintains a constant linear speed
- C. covers equal distances in equal times in a straight-line D. is acted upon by balanced force
10. the slope of a linear distance-time graph represent
- A. acceleration B. displacement C. speed D. velocity

ESSAY

1(a) write down the equation of motion for a body falling freely under gravity.

(b) Show how from the velocity-time graph for a body:

(i) the acceleration at any instant

(ii) the average velocity, can be calculated

2(a). A particle moving in a straight line with uniform deceleration has a velocity of 40m/s at a point P, 20m/s at a point Q and comes to rest at a point R where QR=50m. Calculate the:

(i) distance PQ

(ii) time taken to cover PQ

(iii) time taken to cover PR

(b) Explain the terms uniform acceleration, uniform velocity and instantaneous velocity.

PHYSICS TEACHERS' CONTACTS FOR ASSISTANCE

S/N	NAME OF STAFF	Email address	PHONE NUMBER
1	SOLOMON UWAOMA C	Solomonuwaoma8@gmail.com	08068735956

NOTE

-Students should feel free to interact with the above physics teacher for assistance through phone calls or WhatsApp or Email.

-Students should answer questions in their test and assignment exercise book.

-please submit to your teachers email address. Handwritten solution to essay questions can be photographed and uploaded.