

VIVA COLLEGE SCHOOL HOLIDAY INTERVENTION FACULTY OF SCIENCE

SENIOR TWO HOLIDAY PACKAGE

CHEMISTRY

1. Suggest ways the knowledge of chemistry can be used to combat the corona virus problem (15 marks)
2. Oxygen gas can be prepared in the laboratory by adding a catalyst X to hydrogen peroxide.
 - (a) Name one substance that X could be. (01 mark)
 - (b) Write the equation for the reaction that takes place when hydrogen peroxide is decomposed to produce oxygen gas. (01mark)
 - (c) Draw a well labelled set up of apparatus that can be used to prepare a dry sample of oxygen gas. (05 marks)
 - (d) State the test for oxygen gas (02 marks)
 - (e) Name the product(s) formed when oxygen reacts with the following substances
 - (i) Hydrogen (01 mark)
 - (ii) Sodium (02 marks)

BIOLOGY

1. Make research and write notes on the nitrogen cycle.

Your notes must include the following:

(a) Definition of the following terms

- i. Nitrogen cycle
- ii. Nitrogen fixation
- iii. Nitrification
- iv. Denitrification

(b) Description of the various processes involved.

PHYSICS

1. Italy has grossly been affected by Corona virus. In your capacity as a physics student, explain what can be done in Italy to reduce/prevent further infection and loss of lives.

2. Design a pin-hole camera using a box and a white sheet of paper

3. Define the term rectilinear propagation of light.

b) describe an experiment to verify the rectilinear propagation of light

S.2 AGRIC QUESTIONS:

1. In what ways has the corona virus epidemic affected Agricultural production in Uganda?
2. Explain the ways how livestock diseases are caused, transmitted and how they can be controlled.