

**EDUCATION-NEWS CONSULT  
OCT 2024 BECE HOME MOCK 1  
(2025 BECE)  
INTEGRATED SCIENCE  
2 HRs, 15 MINS**

Name.....

Index Number.....



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**EDUCATION-NEWS CONSULT MOCK – OCTOBER 2024 EDITION FOR 2025 BECE**

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**SPECIAL PERFORMANCE BOOSTER – MOCK 1**

**OCTOBER 2024 INTEGRATED SCIENCE 2 HOURS, 15 MINS**

*Do not open this booklet until you are told to do so. While you are waiting, read and observe the following instructions carefully. Write your name and index number in ink in the spaces provided above.*

*This booklet consists of two papers; I and II. Answer Paper 2 which comes first in your answer booklet and Paper 1 on your Objective Test answer sheet. Paper 2 will last for 1 hour, 15 Mins after which the answer book let will be collected. Do not start Paper until you are told to do so. Paper 1 will last 60 minutes.*

**VERY IMPORTANT INSTRUCTIONS**

- 1. Read through the questions, brainstorm and plan your answers before you finally answer them. This is one of the good ways to manage your time in an exam and to do well.*
- 2. Write clearly, use simple expressions and provide the best answers possible.*
- 3. Write answers that provide additional information. If you just list answers or provide one to three worded answers, your will fail the paper.*
- 4. Do well to explain your answers to help earn full marks. Check your units of measurement, spellings, grammar and read over your work before submitting.*
- 5. Write question numbers boldly, start every new major question (answers) on a new page.*
- 6. Do not rewrite the full question before answering. Only write the question number.*
- 7. Show workings in all instances in section B if the question involves calculations.*

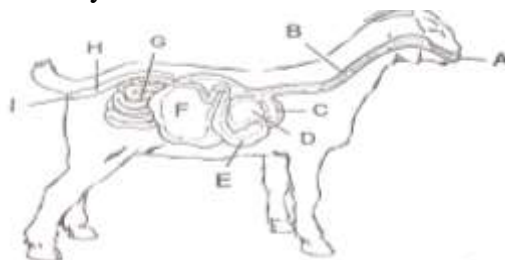
**PAPER 2**  
[100 MARKS]

This paper is in two parts: I and II. Answer question 1 in part I and any other four questions in part II. Answer all questions in your answer booklet. Credit will be given for clarity of expression and orderly presentation of materials.

**PART I**  
[40 MARKS]

Answer **all** of **Question 1**

1. a. The figure below shows the digestive system of a domestic animal. Use it to answer the questions that follow.



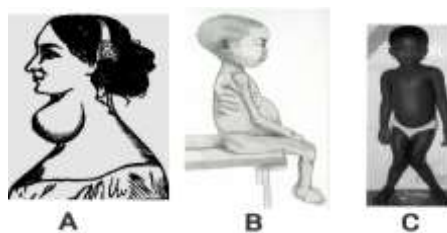
- g. Name the parts labelled C, D, E and F (4 marks)  
 h. State the function of the part B and G. (2 mark)  
 i. Explain how digestion occurs in the animal above. (4 marks)

- i. Study the parasites below and answer the questions that follow.



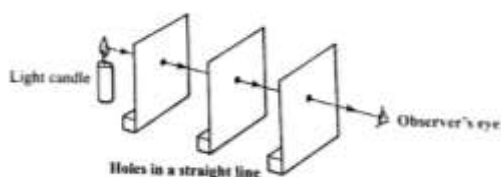
- [a] Identify each of the organisms labelled I, II, III and IV. (4 marks)  
 [b] In which parts of the host do organisms I and II live? (2 marks)  
 [c] State two methods of controlling organism III. (2 marks)  
 [d] Give two effects of organism I. (2 marks)

- ii. The diagrams below illustrate people suffering from some deficiency diseases. Study it and answer the questions that follow.



- a. Identify the diseases shown in A, B and C (3 marks)  
 b. State how the affected persons developed each of the disease. (3 marks)  
 c. Which of the diseases can be controlled easily? (1 mark)  
 d. Describe how to control the named disease in c(i). (3 marks)

- iii. The diagram below is an experiment performed by Basic 7 students in a school. Use it to answer the questions that follow.



- i. Suggest an appropriate title for the experiment above. [2 marks]  
 ii. What happens if the middle board is shifted? [2 marks]  
 iii. What conclusion can the students draw from the result of the experiment? [2 marks]  
 iv. State two applications of the experiment demonstrated above. [4 marks]

## PART II

[60 MARKS]

Answer three Questions from this part.

2. a. i. Give three symptoms of Gonorrhoea in women. (4 marks)  
ii. A pair of scissors, a wheelbarrow and forceps are classified as first, second and third class levers respectively. Base on what factor are the simple machines classified? (2 marks)
  - b. i. What is transplanting? (2 marks)  
ii. State four precautions to be observed when transplanting pepper. (3 marks)
  - c. i. What is a magnetic line of force? (2 marks)  
ii. Magnetic substances are substances that are attracted by magnets. State any three metals that are exceptions. (3 marks)
  - d. Explain any two of the major processes in the carbon cycle. (4 marks)
3. a. Distinguish between heterogeneous mixture and homogeneous mixture. (4 marks)
  - b. State whether each of the following is a homogeneous mixture or a heterogeneous mixture.
    - i. water and oil (1 mark)
    - ii. water and alcohol (1 mark)
    - iii. Petrol and kerosene (1 mark)
  - c. i. State three importance of feeding in humans. (3 marks)  
ii. Give three similarities between prokaryotic and eukaryotic cells. (3 marks)
  - d. i. Briefly describe how food is digested in the stomach. (4 marks)  
ii. Explain what happens to meat before it reaches the stomach. (3 marks)
4. a. i. State three conditions under which farmers practise monoculture. (3 marks)  
ii. In what three ways is water important to animals? (3 marks)
  - b. i. Explain why waterlogged soil is not good for agriculture. (2 marks)  
ii. How are meteoroids produced? (2 marks)
  - c. i. What is the difference between forward biased and reverse biased P-N junction diodes? (4 marks)  
ii. Write the difference in the role of a biochemist and an archaeologist. (3 marks)
  - d. Mention three ways of handling and disposing toxic wastes safely. (3 marks)
5. a. State one feature each of the following organisms that protect it from predators.
    - i. Chameleon. (1 mark)
    - ii. Porcupine. (1 mark)
    - iii. Tortoise. (1 mark)
  - b. i. Give three activities that cause the temperature of a body to rise. (3 marks)  
ii. State the law of refraction of light. (2 marks)
  - c. i. Mention three colours of light. (3 marks)  
ii. Using a prism, draw how white light is separated into its component colours. (5 marks)
  - d. i. Why will a person who falls from a taller building sustain more injuries than a person who falls from a shorter building? (3 marks)  
ii. Give two examples of bacterial skin infection. (2 marks)



14. Why do ecosystems with a high level of biodiversity tend to be more stable and resilient?
- Because they have fewer species
  - Because they have more resources
  - Because they can better withstand environmental changes
  - Because they have simpler food webs
15. The continuous movement of water from the earth's surface to the atmosphere and back is known as what cycle?
- Carbon cycle
  - Nitrogen cycle
  - Water cycle
  - Oxygen cycle
16. In crop production, why is crop rotation considered a beneficial farming practice?
- It depletes the soil nutrients
  - It reduces soil fertility
  - It prevents soil erosion
  - It helps maintain soil health and reduces pests
17. Using a hoe in farming is typically associated with which type of agricultural practice?
- Large-scale farming
  - Irrigation farming
  - Subsistence farming
  - Aquaculture
18. Industrial pollution can have harmful effects on which aspect of the environment?
- Increasing natural habitats
  - Improving soil quality
  - Decreasing air and water quality
  - Enhancing biodiversity
19. How does proper waste management contribute to environmental sustainability?
- By increasing the use of fossil fuels
  - By reducing the amount of waste in landfills
  - By promoting the generation of more waste
  - By increasing pollution levels
20. Why is it essential for individuals to practice good personal hygiene habits?
- To conserve energy
  - To promote social isolation
  - To prevent the spread of diseases
  - To reduce food waste
21. The greenhouse effect, which contributes to climate change, is caused by what specific mechanism?
- Reflection of sunlight by clouds
  - Absorption of heat by greenhouse gases in the atmosphere
  - Blocking of sunlight by tall buildings
  - Increased oxygen levels in the atmosphere
22. Which component of the solar system is known for its extensive ring system made up of ice particles and rocky debris?
- Jupiter
  - Saturn
  - Mars
  - Venus
23. The function of mitochondria within a living cell is primarily to do what?
- Store genetic information
  - Provide energy through cellular respiration
  - Control cell division
  - Protect the cell from pathogens
24. Renewable energy sources, such as solar and wind power, are considered beneficial for the environment because they do what?
- Deplete natural resources
  - Produce minimal pollution
  - Increase greenhouse gas emissions
  - Rely on fossil fuels
25. The law of inertia, which states that an object will remain at rest or in uniform motion unless acted upon by an external force, is part of which scientific field?
- Chemistry
  - Biology
  - Physics
  - Astronomy
26. Protecting and preserving various ecosystems around the world helps to maintain what crucial environmental balance?
- Increased pollution levels
  - Higher rates of species extinction
  - Natural balance of flora and fauna
  - Reduction in natural resources
27. The process of photosynthesis in plants primarily involves the conversion of sunlight into what form of energy?
- Electrical energy
  - Mechanical energy
  - Chemical energy
  - Thermal energy
28. Farmers often implement irrigation systems in their fields for which main purpose?
- To increase soil acidity
  - To provide adequate water supply for crops
  - To decrease crop production
  - To prevent soil erosion
29. In the field of agricultural tools, a plow is specifically used for which agricultural task?
- Harvesting crops
  - Watering plants
  - Turning and loosening the soil
  - Spreading fertilizer

30. The process of industrialization has led to significant advancements in which area of society?
- A) Reduction in technology use
  - B) Increase in manual labor
  - C) Development of new technologies and improved living standards
  - D) Decrease in economic growth
31. What role does composting play in effective waste management and soil health?
- A) Increases the volume of landfills
  - B) Reduces organic waste and enhances soil fertility
  - C) Promotes the growth of harmful bacteria
  - D) Decreases the recycling rate
32. Why is it vital for communities to have access to clean and safe drinking water?
- A) To promote industrial growth
  - B) To reduce the incidence of waterborne diseases
  - C) To increase water wastage
  - D) To encourage water pollution
33. The depletion of the ozone layer is primarily caused by which human-made chemicals?
- A) Carbon dioxide
  - B) Chlorofluorocarbons (CFCs)
  - C) Nitrogen oxides
  - D) Methane
34. The planet closest to the sun in our solar system is known as what?
- A) Venus
  - B) Earth
  - C) Mars
  - D) Mercury

35. How do living cells in multicellular organisms typically communicate with each other?

- A) Through cellular respiration
- B) By direct physical contact only
- C) Via chemical signals and hormones
- D) Through photosynthesis

36. Which of these foods is a source of protein?

- A. Water
- B. Tubers
- C. Legumes
- D. Fruits

37. The basic unit of a plant or animal or a living organism is a/an....

- A. atom
- B. living cell
- C. ion
- D. cell water

38. The pair of mineral salts needed by plants for the formation chlorophyll is..

- A. calcium and iron
- B. potassium and Nitrogen
- C. sulphur and Zinc
- D. iron and Magnesium

39. The digestive enzyme contained in saliva is known as.....

- A. ptyalin
- B. lipas
- C. trypsin
- D. maltose

40. The chloroplast in plant cells contain.....

- A. oxygen
- B. waste materials
- C. chlorophyll
- D. dissolved food substances