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

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Index Number	



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EDUCATION-NEWS CONSULT MOCK – OCTOBER 2024 EDITION FOR 2025 BECI

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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]

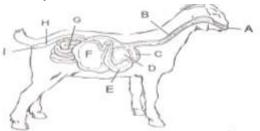
This paper is in two parts: I and II. Answer question 1 in part I and any other four questions in part II. Answer all questions in your answer booklet. Credit will be given for clarity of expression and orderly presentation of materials.

PART I

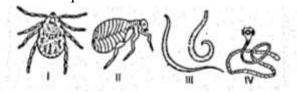
[40 MARKS]

Answer all of Question 1

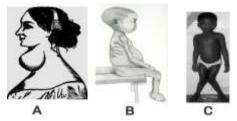
1. a. The figure below shows the digestive system of a domestic animal. Use it to answer the questions that follow.



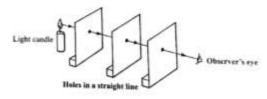
- g. Name the parts labelled C, D, E and F (4 marks)
- h. State the function of the part B and G. (2 mark)
- i. Explain how digestion occurs in the animal above. (4 marks)
- i. Study the parasites below and answer the questions that follow.



- [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 Gonorrhea 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 observed when transplanting pepper. (3 marks) a. i. What is a magnetic lines of force? (2 marks)
c. i. What is a magnetic lines of force? (2 marks) ii. Magnetic substances are substances that are attracted by magnets. State any three metals that are exception. (3 marks)
d. Explain any two of the major process 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) iii. 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 reversed biased P-N junction diodes? (4 marks) ii. Write the difference in the role of a biochemist and an archeologist. (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)

PAPER 1 OBJECTIVE TEST

[40marks]

Each question is followed by four options lettered **A** to **D**. Find out the correct option for each question and shade in pencil on your answer sheet the answer space which bears the same letter as the option you have chosen. Give only **one** answer to each question

- Farmers often use which of these agricultural tools for turning the soil and preparing the seedbed before planting crops?
- A) Hoe

B) Rake

C) Sickle

- D) Scythe
- 2. In crop production, the process of removing weeds from a field to promote healthy growth of crops is known as what?
- A) Fertilizing

B) Harvesting

C) Weeding

- D) Irrigating
- 3. Which tool is commonly used for cutting tall grass or reaping crops in traditional farming?
- A) Shovel

B) Sickle

C) Spade

- D) Hoe
- 4. The development of new farming techniques and machinery has led to which significant change in agriculture?
- A) Increased reliance on manual labor
- B) Decrease in crop production
- C) Increased productivity and efficiency
- D) Decrease in agricultural output
- 5. Why do some industrial processes contribute significantly to environmental pollution and climate change?
- A) They use renewable energy sources
- B) They produce a large amount of waste and emissions
- C) They are highly efficient
- D) They use only natural resources
- 6. One of the major consequences of deforestation on the ecosystem includes which of the following effects?
- A) Increased biodiversity
- B) Reduced soil erosion
- C) Loss of habitat for many species
- D) Improved air quality
- 7. Recycling waste materials helps in conserving natural resources by doing what?
- A) Increasing landfill space
- B) Reducing the need to extract new raw materials
- C) Increasing waste production
- D) Decreasing the cost of production

- 8. In terms of human health, why is it important to have a balanced diet that includes a variety of nutrients?
- A) To avoid overeating
- B) To ensure the body receives all necessary vitamins and minerals
- C) To reduce food costs
- D) To follow a single type of nutrient-rich food
- 9. How does deforestation affect the carbon cycle and contribute to climate change?
- A) By decreasing carbon dioxide levels in the atmosphere
- B) By increasing the absorption of carbon dioxide by trees
- C) By reducing the number of trees that absorb carbon dioxide
- D) By preventing soil erosion
- 10. The term 'solar system' refers to what specific arrangement in space?
- A) A collection of galaxies
- B) A group of stars
- C) A star and its orbiting planets, moons, and other objects
- D) A constellation
- 11. Why is it necessary for scientists to understand the structure and functions of living cells?
- A) To create new organisms
- B) To develop new agricultural tools
- C) To understand diseases and develop medical treatments
- D) To improve machinery efficiency
- 12. When considering energy conservation, which practice helps to reduce the overall energy consumption?
- A) Using energy-efficient appliances
- B) Increasing the use of fossil fuels
- C) Reducing the use of renewable energy
- D) Increasing energy wastage
- 13. The primary force that causes objects to fall to the ground is known as what?
- A) Friction

B) Magnetism

C) Gravity

D) Buoyancy

- 14. Why do ecosystems with a high level of biodiversity tend to be more stable and resilient?
- A) Because they have fewer species
- B) Because they have more resources
- C) Because they can better withstand environmental changes
- D) 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?
- A) Carbon cycle
- B) Nitrogen cycle
- C) Water cycle
- D) Oxygen cycle
- 16. In crop production, why is crop rotation considered a beneficial farming practice?
- A) It depletes the soil nutrients
- B) It reduces soil fertility
- C) It prevents soil erosion
- D) It helps maintain soil health and reduces pests
- 17. Using a hoe in farming is typically associated with which type of agricultural practice?
- A) Large-scale farming
- B) Irrigation farming
- C) Subsistence farming
- D) Aquaculture
- 18. Industrial pollution can have harmful effects on which aspect of the environment?
- A) Increasing natural habitats
- B) Improving soil quality
- C) Decreasing air and water quality
- D) Enhancing biodiversity
- 19. How does proper waste management contribute to environmental sustainability?
- A) By increasing the use of fossil fuels
- B) By reducing the amount of waste in landfills
- C) By promoting the generation of more waste
- D) By increasing pollution levels
- 20. Why is it essential for individuals to practice good personal hygiene habits?
- A) To conserve energy
- B) To promote social isolation
- C) To prevent the spread of diseases
- D) To reduce food waste
- 21. The greenhouse effect, which contributes to climate change, is caused by what specific mechanism?
- A) Reflection of sunlight by clouds
- B) Absorption of heat by greenhouse gases in the atmosphere
- C) Blocking of sunlight by tall buildings
- D) 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?
- A) Jupiter B) Saturn C) Mars D) Venus
- 23. The function of mitochondria within a living cell is primarily to do what?
- A) Store genetic information
- B) Provide energy through cellular respiration
- C) Control cell division
- D) 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?
- A) Deplete natural resources
- B) Produce minimal pollution
- C) Increase greenhouse gas emissions
- D) 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?
- A) Chemistry
- B) Biology

C) Physics

- D) Astronomy
- 26. Protecting and preserving various ecosystems around the world helps to maintain what crucial environmental balance?
- A) Increased pollution levels
- B) Higher rates of species extinction
- C) Natural balance of flora and fauna
- D) Reduction in natural resources
- 27. The process of photosynthesis in plants primarily involves the conversion of sunlight into what form of energy?
- A) Electrical energy
- B) Mechanical energy
- C) Chemical energy
- D) Thermal energy
- 28. Farmers often implement irrigation systems in their fields for which main purpose?
- A) To increase soil acidity
- B) To provide adequate water supply for crops
- C) To decrease crop production
- D) To prevent soil erosion
- 29. In the field of agricultural tools, a plow is specifically used for which agricultural task?
- A) Harvesting crops
- B) Watering plants
- C) Turning and loosening the soil
- D) 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