



# **INTEGRATED SCIENCE**

**604**

062



**Nov. 2022 – 1 hour 40 minutes**

## **INSTRUCTIONS TO CANDIDATES (Please read these instructions carefully)**

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions. Answer **all** the questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the **ANSWER SHEET**, not in this question booklet.

### **HOW TO USE THE ANSWER SHEET**

4. Use an ordinary pencil.
5. Confirm that the answer sheet that you have been provided with has the following:

**YOUR ASSESSMENT NUMBER**

**YOUR NAME**

**NAME OF YOUR SCHOOL**

**NAME OF SUBJECT**

6. Do not make any marks outside the boxes.
7. Keep the sheet as clean as possible and do not fold it.
8. For each of the questions 1–50, four choices are given. The choices are lettered A, B, C and D. In each case, only **ONE** of the four choices is correct. Choose the correct answer.
9. On the answer sheet, show the correct answer by drawing a **dark line** inside the box in which the letter you have chosen is written.

#### **Example:**

#### **In the Question Booklet:**

23. John and Peter observed a mango fruit falling from a mango tree. John told Peter that the mango fell because of
- high temperature
  - force of gravity
  - its small mass
  - its high motion

The correct answer is B.

#### **On the answer sheet:**

In the set of boxes numbered 23, draw a **dark line** inside the box with the letter B printed in it as indicated below.

23 [A] [B] [C] [D]

10. Your dark line **MUST** be within the box.
11. For each question, **ONLY ONE** box is to be marked in each set of four boxes.

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**This Question Paper consists of 7 printed pages and 1 blank page.**



**Turn over**



1. Learners went for a nature walk to study the importance of plants. They listed the following as the importance of plants. They

- (i) produce fruits
- (ii) attract rain
- (iii) beautify environment
- (iv) protect soil
- (v) produce nectar

Which **two** are true for flowering plants?

- A. (i) and (iii)
- B. (i) and (v)
- C. (ii) and (iv)
- D. (iii) and (v)

2. Grade 5 learners in a certain primary school grouped fungi with their use.

Which of the following fungi was correctly matched to its use?

Fungi	Use
A. Yeast	preservation of beverages
B. Toadstool	food for animals
C. Mushroom	beauty of environment
D. Penicillium	source of medicine

3. A learner observed that when food remains fell on the floor, the food was quickly covered by small ants which ate all of it.

This behaviour by the ants demonstrated that living things

- A. respond to changes in their environment
- B. love eating food
- C. hunt for food in their environment
- D. hide after feeding.

4. In a certain family the water used for washing clothes is then used to clean the house. Water taps are also turned off when not in use. Which one of the following is true about the family? It conserves water by

- A. recycling and re-using
- B. reducing only
- C. re-using and reducing
- D. recycling only.

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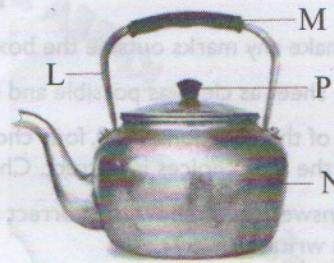
5. While sweeping the classroom, Jane started sneezing and found it difficult to continue sweeping. What could Jane do to prevent sneezing and continue sweeping?

- A. Put on an overcoat.
- B. Sprinkle water on the floor.
- C. Wear gloves.
- D. Change the broom she is using.

6. During a lesson on fungi, the teacher warned learners not to pick mushrooms on their own for cooking. The reason why learners should follow their teacher's advice is that

- A. mushrooms have no nutrients
- B. some mushrooms have worms
- C. mushrooms are difficult to cook
- D. some mushrooms are poisonous.

7. The picture below shows a kettle with parts labelled L, M, N and P.



Which **two** parts are likely to be made of poor conductors of heat?

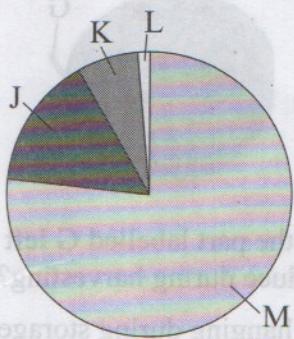
- A. L and P
- B. L and N
- C. M and N
- D. M and P.

8. To control the COVID-19 pandemic, one of the measures taken is to clean hands. A learner noted that after using a sanitiser, hands dry up faster than when washed with water. This is because the sanitiser

- A. freezes quickly
- B. is absorbed by the skin
- C. condenses easily
- D. evaporates easily.

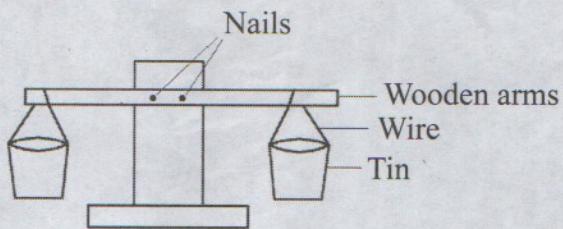


9. After a discussion on composition of air, learners presented the information in a pie chart as shown below.



Which one of the following letters represents a gas that supports burning?

- A. M
  - B. K
  - C. L
  - D. J
10. The diagram below represents a beam balance that was constructed by learners to be used for comparing masses of objects.



The beam balance could not compare masses of objects because

- A. the arm was fixed
  - B. a wooden arm was used
  - C. wires were used instead of thread
  - D. similar tins were used.
11. During a class discussion, learners listed the following as some effects of gravity.
- (i) Flowing of water in rivers.
  - (ii) Writing on chalkboard.
  - (iii) Fruits falling from a tree.
  - (iv) Swimming in a pool.

Which **two** are correct effects of gravity?

- A. (ii) and (iii)
- B. (i) and (iv)
- C. (i) and (iii)
- D. (ii) and (iv)

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12. Learners dropped dry leaves on a fire and observed that some leaves moved upwards instead of dropping into the fire. Which one of the following statements best explains the observation?

- A. Leaves are light.
- B. Leaves expand.
- C. Wind carried leaves upwards.
- D. Hot air carried leaves upwards.

13. Learners were preparing to go out for a nature walk in a nearby forest. Which one of the following pair of protective equipment would be **most** suitable for their safety when handling plants in the forest?

- A. Gloves and goggles.
- B. Gloves and overcoats.
- C. Tongs and overcoats.
- D. Goggles and tongs.

14. A learner went to hospital complaining of severe diarrhoea, vomiting and thirst. Which one of the following diseases was the learner likely to be suffering from?

- A. Bilharzia.
- B. Cholera.
- C. Typhoid.
- D. Dysentery.

15. Learners observed a cloud that was low in the sky, dark-grey in colour and thick. The appearance of the cloud indicates that there was going to be a

- A. windy weather
- B. foggy weather
- C. rainy weather
- D. sunny weather.



16. Which of the following crop is a climbing fruit?  
A. Orange.  
B. Passion.  
C. Mango.  
D. Apple.
17. How can the learners protect young climbing fruit plants from damage by animals?  
A. Staking the plants.  
B. Constructing a shade.  
C. Trapping the animals.  
D. Applying a mulch.
18. Which of the following practices will provide support to a climbing fruit plant?  
A. Hardening.  
B. Pruning.  
C. Training.  
D. Mulching.
19. Which of the following crops is eaten as a fresh fruit?  
A. Pumpkin.  
B. Water melon.  
C. Cucumber.  
D. Calabash.
20. What is the **main** nutritional benefit of eating mangoes?  
A. Vitamins.  
B. Proteins.  
C. Fibre.  
D. Carbohydrates.

21. The picture below shows a farm produce after harvesting.



Why is the part labelled **G** left attached on the produce during harvesting?

- A. For hanging during storage.
- B. For holding during slicing.
- C. To prevent spoilage.
- D. To hold when carrying.

A farmer planted maize as shown in the picture below to conserve soil water. Study the picture and answer questions 22 to 23.



22. The type of seedbed shown in the picture to grow maize is a  
A. container  
B. shallow pit  
C. sunken bed  
D. moisture bed.
23. How does the seedbed in the picture help to conserve water?  
A. Reduces evaporation.  
B. Collects surface run-off.  
C. Prevents effects of strong wind.  
D. Protects soil from strong sun.





In the preparation of a nursery bed, Grade five learners used the garden tool shown below. Study the picture and answer **questions 24 to 25**.



- 24.** The learners used the garden tool
- to lift seedlings from the nursery bed
  - for weeding the nursery bed
  - to measure the spacing for the crop
  - to level the nursery bed.
- 25.** Which of the following caring practices should be carried out on the tool after use?
- Oiling.
  - Painting.
  - Cleaning.
  - Sharpening.
- 26.** Mrs. Chacha always stuffs her leather shoes with old newspapers before storing. Which of the following is the reason for stuffing old newspapers? To
- prevent her shoes from becoming small
  - prevent her shoes from getting dirty
  - make her shoes dry completely
  - prevent her shoes from losing shape.
- 27.** Kwamboka is feeling unwell. She is showing the following symptoms: Fever, pain in the joints, headache and vomiting. Which of the following diseases is she suffering from?
- Malaria.
  - Cough.
  - Measles.
  - Chicken pox.
- 28.** Kangu and Yala are helping to make a family budget. Which of the following is the reason why they are making a family budget? To
- make their family happy
  - buy expensive items
  - make good use of money
  - buy all the items in fashion.

- 29.** Grade 4 learners were asked by their Home Science teacher to make posters on the foods that make us healthy. Read what they wrote on the posters.

<b>Beans</b> <b>Meat</b> <b>Eggs</b> <b>Fish</b>	<b>Cassava</b> <b>Rice</b> <b>Bread</b> <b>Ugali</b>	<b>Oranges</b> <b>Spinach</b> <b>Pineapples</b> <b>Cabbages</b>
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Poster 1

Poster 2

Poster 3

Which of the posters contain foods that provide our body with energy?

- Poster 1
- Poster 2
- Poster 3
- Posters 1 and 3.

- 30.** Joan wants to help her mother preserve cereals by drying in the sun. Which of the following shows the correct steps?

- Wash, dry completely and put in the sun.
- Dry completely, pack in airtight bags
- Dry completely, pack in bags and store.
- Dry completely, pack in airtight bags, store in a dry place.

- 31.** Grade 6 learners used their digital devices to get information on cleaning a charcoal *jiko* that was used for cooking. The following is the information:

- Empty the *jiko*.
- Let the *jiko* cool.
- Leave it in an airy place to dry.
- Wipe the metal parts with a cloth wrung out of warm soapy water.

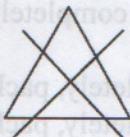
Which of the following shows the correct order the learners can follow when cleaning the *jiko*.

- (ii), (i), (iv), (iii)
- (i), (ii), (iv), (iii)
- (i), (iii), (ii), (iv)
- (ii), (i), (iii), (iv)





32. Wanjala was told by her parents to be cleaning utensils immediately after use. Why do you think this is important?
- To make the utensil last long.
  - To prevent them from staining.
  - To prevent them from cracking.
  - To make them shine after washing.
33. Loima and Ole-Kina are talking about the importance of mending clothes before washing. Loima tells Ole-Kina that we mend clothes before washing to
- prevent the clothes from getting creased
  - make the clothes look new after washing
  - prevent further damage to the clothes
  - retain the original colour of the clothes.
34. The diagram below shows a symbol found on a care label attached on a shirt.



What is the meaning of the symbol?

- Wash by hand.
  - Do not bleach.
  - Do not dry clean.
  - Dry on a clothes line
35. Kola wants to make a neck scarf to give his grandfather as a gift. Which one of the following is **not** a method he can use to make the neck scarf?
- Sewing.
  - Knitting.
  - Weaving
  - Crotchetting.

36. Learners were asked to outline the process of performing long jump. Which of the following is the correct process?
- Flight, take-off, approach, landing.
  - Approach, take-off, flight, landing.
  - Take-off, landing, approach, flight.
  - Landing, approach, take-off, flight.
37. Which of the following statements is **true** about safety when throwing javelin in the field?
- Only the thrower and the one to collect the thrown javelin should be in the throwing area.
  - The javelin may be thrown back to the throwing area after landing.
  - The thrown javelin should be caught while in the air to avoid breaking.
  - The thrower is the only player who is supposed to be in the throwing area.
38. A soccer goalkeeper strained a thigh muscle during a football match. A first aider applied a bandage on the injured part. Why was the bandage applied?
- To stop bleeding.
  - To reduce swelling.
  - To immobilise the leg.
  - To use the first aid materials.
39. Four athletes consumed different types of drinks before the race. Who among the four consumed the **most** appropriate drink for hydration?
- Peter drunk water.
  - James drunk porridge.
  - Sophia drunk milk.
  - Daisy drunk coffee.
40. Which of the following activities would you and your friends engage in to enhance physical fitness?
- Sleeping for long hours so as to rest.
  - Swimming regularly with friends.
  - Eating balanced diet at all times.
  - Watching soccer games to learn the skills.

41. You have been asked to select players for your school's volleyball team. How many players will you identify to be in the court at the start of a volleyball game?

- A. 6
- B. 12
- C. 11
- D. 7

42. Grade six learners were planning for movement sequences in gymnastics. Which of the categories provided is an appropriate two-action sequence?

- A. Side vault to Backward roll.
- B. Backward roll to fence vault.
- C. Cartwheel to Headstand.
- D. Astride Vault to Forward roll.

43. Your group is preparing to demonstrate flexibility testing to other class members. Which of the following equipment should your group use?

- A. Sit and reach box.
- B. Tape measure.
- C. Weighing scale.
- D. Measuring string.

44. An athlete from your school finished first in a marathon race. Which was the most important physical fitness component the athlete used?

- A. Power.
- B. Speed.
- C. Endurance.
- D. Coordination.

45. A group of learners preserved food appropriately when going out for an excursion. Why was the food preserved?

- A. To add taste before eating.
- B. To keep warm and dry.
- C. To stay long before spoiling.
- D. For ease of carrying.

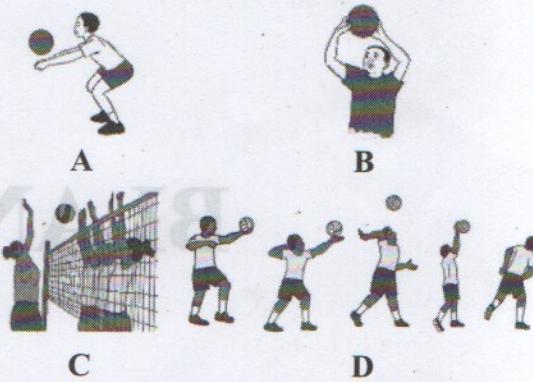
46. Four learners gave the meaning of ABC in first aid. Which of the responses given was the correct meaning?

- A. Awake Breathing and Circulation.
- B. Assess Breathing and Circulation.
- C. Airways Breathing and Circulation.
- D. Airways Bleeding and Circulation.

47. A learner was stung by a bee during an outdoor activity in the school farm. What did the teacher advice the learner to do?

- A. Immediately go home and sleep.
- B. Place hot water in the stung area.
- C. Pull the sting out immediately.
- D. Kill the bees and continue.

48. The images below show various skills used when playing volleyball game. Which one shows an over arm serve technique?



49. When playing a game, players aim at scoring. Which of the following games is correctly matched with the method of scoring?

- A. Tag rugby – Shot
- B. Volleyball – Try
- C. Soccer – Goal
- D. Handball – Gun

50. During a netball competition, one player used a shoulder pass to pass the ball to a team mate. Why did this player choose to use the shoulder pass?

- A. Team mate was close.
- B. Team mate was running.
- C. Team mate was marked.
- D. Team mate was far.