THE KENYA NATIONAL EXAMINATION AND ASSESSMENT PREDICTION SERIES

Candidate's Name		**Assessment Number**	
School Name		**School Code**	
Candidate's Signature		**Date**	

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT

705/1: INTEGRATED SCIENCE (*Theory*)

PAPER 1

TERM 2 END-TERM 2025

TIME: 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and assessment number in the spaces provided above.
2. Write the name and code of your school in the spaces provided above.
3. Sign and write the date of the assessment in the spaces provided above.
4. This paper consists of two sections: A and B.
5. Section A comprises Multiple Choice Questions numbered 1 to 30.
6. Section B comprises short, structured questions number 31 to 40.
7. Answer ALL the questions in section A on the separate ANSWER SHEET provided.
8. Answer ALL the questions in section B in the spaces provided in this QUESTION PAPER.
9. Do NOT remove any page from this question paper.
10. Answer ALL the questions in English.

For official use only: SECTION B

Task	Task 1		Task 2			Task 3				Task 4		
Question	31	32	33	34	35	36	37	38	38	39	40	
Score per question												
Maximum score	03		13			16				08		
Candidate's score												

This paper consists of 11 printed pages.

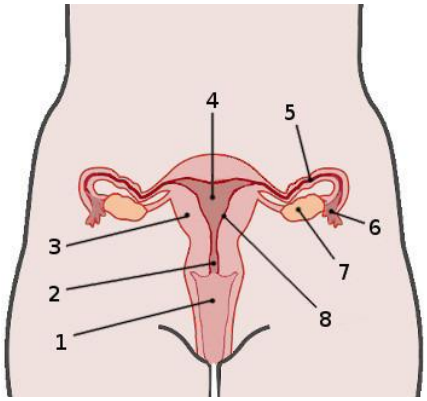
Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

Turn over

SECTION A (30 marks)

Answer ALL the questions in this section.

1. During a biology lesson, a teacher explained about the structures within the female reproductive system. He drew the following diagram.



Which part is responsible for productios of ovum?

A. 1
B. 4
C. 5
D. 7

2. The study of Integrated Science is important in daily life because it helps learners to:

(i) Understand the interactions between different scientific fields.

(ii) Develop critical thinking and problem-solving skills for real-world issues.

(iii) Become experts in one specific scientific discipline.

(iv) Memorize scientific facts without understanding their application.

Which two are correct?

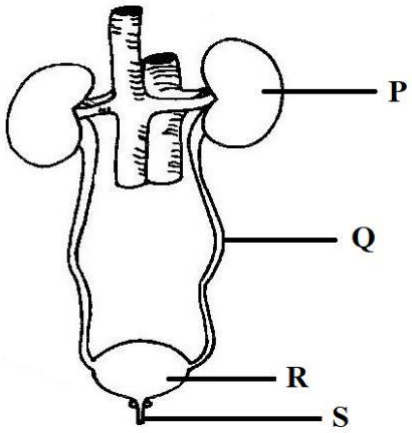
A. (i) and (ii)

B. (ii) and (iii)

C. (iii) and (iv)

D. (i) and (iv)

3.The diagram below was drawn by a learner to show parts of the human urinary system with parts labelled **P**, **Q**, **R** and **S**.



The part that stores urine temporarily is represented by letter

A. **P.**
B. **Q.**
C. **R.**
D. **S.**

4. Which of the following is an example of a common laboratory accident due to improper use of equipment?

A. Falling due to a wet floor.

B. A cut from broken glassware.

C. Burns from a hot plate.

D. A fracture from dropping heavy equipment.

5. First aid for minor cuts in the laboratory primarily involves:

A. Applying a burn cream.

B. Cleaning the wound with soap and water and applying a sterile dressing.

C. Immobilizing the affected limb.

D. Calling emergency services immediately.

6. Which of the following is a crucial safety measure to observe when working with a Bunsen burner?

A. Wearing open-toed shoes.

B. Leaving long hair untied.

C. Ensuring there are no flammable materials nearby.

D. Working alone in the laboratory.

7. Grade 7 learners wanted to measure volumes of substances. Which of the following laboratory apparatus is specifically used for measuring accurate volumes of liquids?

A. Beaker B. Measuring cylinder

C. Conical flask D. Burette

8. A learner is observing a plant cell under a microscope. Which basic science skill is primarily being applied?

A. Predicting B. Classifying

C. Observing D. Inferring

9. Millan wanted to know the units for measuring mass. The SI unit for mass is:

A. Gram (g) B. Kilogram (kg)

C. Pound (lb) D. Milligram (mg)

10. Which part of a microscope is used to adjust the amount of light passing through the specimen?

A. Eyepiece B. Objective lens

C. Diaphragm D. Stage clips

11. A mixture of sugar dissolved in water is an example of a:

A. Heterogeneous mixture B. Homogeneous mixture

C. Suspension D. Colloid

12. Which separation technique would be most suitable for separating iron filings from sand?

A. Filtration

B. Decantation

C. Magnetism

D. Evaporation

13. The process of obtaining pure salt from a salt solution by heating until the solvent evaporates and solid crystals remain is known as:

A. Simple distillation

B. Fractional distillation

C. Crystallization

D. Sublimation

14. Which of the following laboratory indicators turns red in an acidic solution and blue in a basic solution?

A. Phenolphthalein

B. Methyl orange

C. Litmus paper

D. Turmeric extract

15. Which of the following is a physical property of acids?

A. They react with metals to produce hydrogen gas.

B. They feel slippery to the touch.

C. They turn red litmus paper blue.

D. They have a sour taste.

16. A common use of a base in daily life is in:

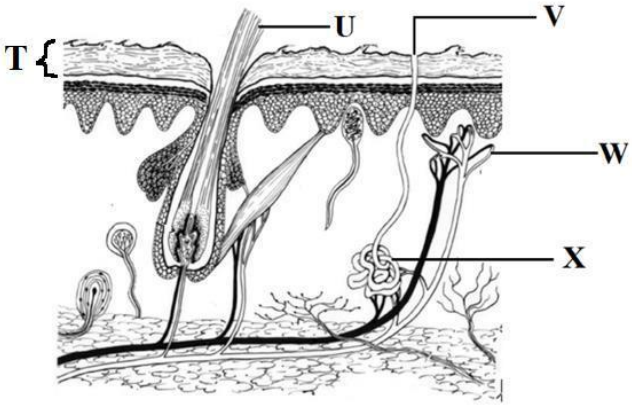
A. Car batteries.

B. Soft drinks.

C. Antacids to relieve indigestion.

D. Vinegar for cooking.

17. Learners discussed various parts of a skin. Which part is called the sweat pore?



A.U B. T C. V D.W

18. Which part of the urinary system is responsible for filtering waste products from the blood to form urine?

A. Bladder B. Ureter C. Kidney D. Urethra

19. A common kidney disorder caused by insufficient water intake and a diet high in certain minerals is:

A. Diabetes

B. Kidney stones

C. High blood pressure

D. Anemia

20. Which of the following is a source of electrical energy that is considered renewable?

A. Coal B. Natural gas

C. Solar energy D. Petroleum

21. In a simple electric circuit, if the wire is broken, what happens to the flow of electricity?

A. It increases.

B. It stops.

C. It becomes intermittent.

D. It becomes stronger.

22. Which of the following is an example of a common electrical appliance that converts electrical energy into heat energy?

A. Electric fan B. Television

C. Toaster D. Refrigerator

23. Which of the following is a vital electrical safety measure?

A. Touching electrical appliances with wet hands.

B. Pulling plugs from sockets by the cord.

C. Using damaged electrical cords.

D. Avoiding overloading electrical sockets.

24. During a lesson to identify common hazards and their symbols, learners observed various symbols. Which one of the following symbols observed represents a biohazard substance?

A. B. C. D

25. Which of the following is a primary role of the skin in the human excretory system?

A. Filtering blood.

B. Producing urine.

C. Excreting excess salts and water through sweat.

D. Storing waste products.

26. A learner observed a substance labelled with a symbol indicating radioactivity. Which of the following is a potential hazard associated with this substance?

A. Burns from direct contact.

B. Respiratory irritation from fumes.

C. Cancer and genetic mutations.

D. Risk of explosion.

27. When a person experiences a scald, the immediate first aid action is to:

A. Apply ice directly to the affected area.

B. Wrap the area tightly with a bandage.

C. Cool the affected area with cool running water for at least 10 minutes.

D. Puncture any blisters that form.

28. Which of the following is a basic science skill used when a learner draws a graph to represent data collected from an experiment?

A. Communicating B. Measuring

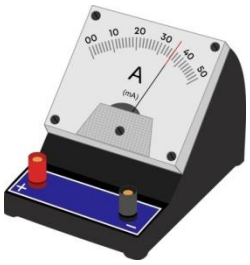
C. Hypothesizing D. Experimenting

29. A mixture of oil and water is an example of a:

A. Homogeneous mixture. B. Solution.

C. Heterogeneous mixture. D. Compound.

30. When learning about laboratory apparatus, a learner touched the following apparatus.



The apparatus above is called?

A. Ammeter

B. multimeter

C. voltmeter

D. volumetric flask

SECTION B (40 marks)

Answer ALL the questions in this section.

31. (a) During a class activity, learners were asked to classify different types of laboratory hazards.

(i) Give one example of a material that is classified as flammable. (1 mark)

(ii) State one first aid measure for a person who has ingested a corrosive substance. (1 mark)

(b) Explain why it is important to report all laboratory accidents, no matter how minor. (2 marks)

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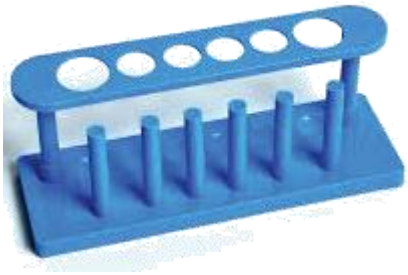
32. The diagram below represents a common laboratory apparatus.



(a) Name the apparatus shown above. (1 mark)

(b) State two safety precautions to be observed when using this apparatus in the laboratory. (2 marks)

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33. Describe how one can separate the following mixtures:

(a) Sand and water. (2 marks)

(b) Salt and iodine. (2 marks)

(c) Water from a salt solution. (2 marks)

34. (a) Learners were provided with red cabbage leaves to prepare a natural acid-base indicator. Describe how the learners could have prepared the indicator. (4 marks)

(b) Explain why stomach upset is commonly treated with antacids. (2 marks)

_____

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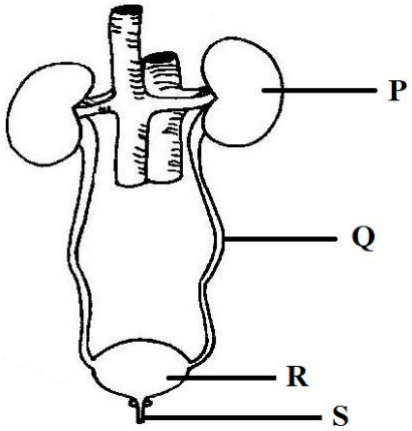
_____

35. The flow chart below shows parts of the human urinary system.



(a) Name the parts labelled P, Q, and R in the flow chart.

P: _____

Q: _____

R: _____ (3 marks)

(b) State two functions of the human skin, apart from excretion. (2 marks)

_____

_____

(c) Briefly explain one cause of kidney failure. (1 mark)

_____

_____

36. (a) During a practical lesson, learners were instructed on the proper use of a Bunsen burner.

(i) Describe the procedure for lighting a Bunsen burner safely. (3 marks)

_____

_____

_____

(ii) State one observation skill that is important when observing a chemical reaction in the laboratory. (1 mark)

_____

(b) A learner accidentally splashed a non-corrosive chemical on their skin. Describe the immediate first aid action. (1 mark)

_____

_____

37. (a) Differentiate between homogeneous and heterogeneous mixtures, giving one example for each. (2 marks)

_____

_____

_____

(b) A learner needs to accurately measure 25.0 mL of a liquid. Which laboratory instrument would be most suitable for this task? (1 mark)

_____

38. Explain how each of the following contribute to safety in the laboratory:

(a) Wearing appropriate personal protective equipment like safety goggles. (1 mark)

_____

_____

(b) Knowing the location of emergency exits and fire extinguishers. (1 mark)

_____

(c) Avoiding eating or drinking in the laboratory. (1 mark)

_____

39. (a) During an activity on electrical energy, learners were asked to identify common electrical appliances in their homes.

(i) Name two common electrical appliances found in a typical Kenyan home. (2 marks)

_____

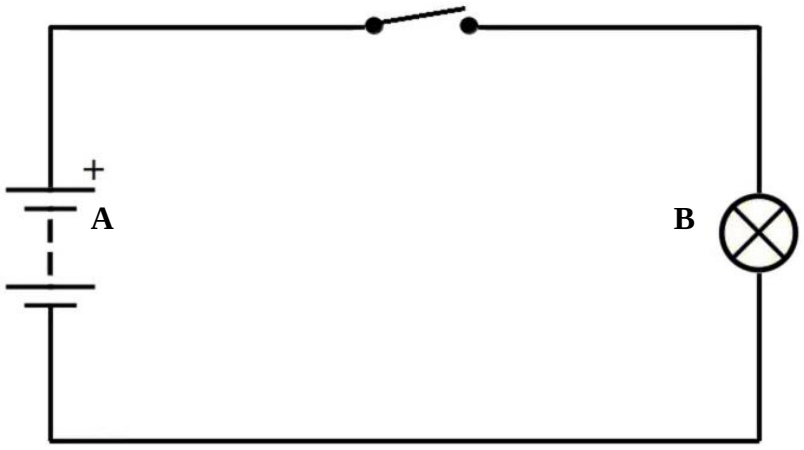
_____

(ii) Explain one safety measure that should be observed when using electrical appliances to prevent accidents. (2 marks)

_____

_____

(b) Learners drew a simple electric circuit as shown below.



Identify the parts labeled A and B(2 marks)

A: _____.

B: _____.

40. (a) A learner is observing a prepared slide of onion cells under a microscope.

(i) State one function of the objective lens of the microscope. (1 mark)

_____

(ii) Explain why it is important to start with the lowest power objective lens when observing a specimen. (1 mark)

_____

_____

(b) If a learner measures the length of a desk as 1.5 meters, what is the SI unit used for this measurement? (1 mark)

_____

(c) Briefly explain the importance of Integrated Science in addressing environmental challenges. (1 mark)

_____

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