

EDUZEDCO
GRADE 7 INTEGRATED SCIENCE
End of Term Examination

Total Marks: 60

Name: Adm No: Date:

Section A (30 Marks)

Answer all the questions in this section.

1. What is Integrated Science? [2 marks]
 - (A) The study of only living things.
 - (B) A subject that combines different branches of science such as biology, chemistry and physics.
 - (C) The study of only the earth and space.
 - (D) The study of only non-living things.
2. State two safety precautions you should observe when handling chemicals in the laboratory. [2 marks]
3. Study the diagram below. Name the apparatus labelled A and state its use. [2 marks]
4. The instrument used to measure the temperature of a substance in the laboratory is called a _____. [2 marks]
5. Which method can be used to separate salt from sea water? [2 marks]
 - (A) Filtration
 - (B) Evaporation
 - (C) Magnetism
 - (D) Hand sorting
6. Define a mixture and give one example. [2 marks]
7. Which of the following substances is acidic? [2 marks]
 - (A) Soap
 - (B) Lemon juice
 - (C) Baking soda

(D) Salt

8. A substance that turns blue litmus paper red is called an _____. [2 marks]

9. Study the diagram of the female reproductive system below. Name the parts labelled A and B. [2 marks]

10. Which organ is responsible for removing carbon dioxide from the body? [2 marks]

- (A) Kidney
- (B) Lungs
- (C) Skin
- (D) Bladder

11. Name two substances that are removed from the body through the skin as sweat. [2 marks]

12. Which of the following materials is a good conductor of electricity? [2 marks]

- (A) Rubber
- (B) Wood
- (C) Copper
- (D) Plastic

13. A battery converts chemical energy into _____ energy. [2 marks]

14. Which one of the following objects will be attracted to a magnet? [2 marks]

- (A) Plastic ruler
- (B) Glass bottle
- (C) Iron nail
- (D) Piece of paper

15. What happens when the north pole of one magnet is brought near the south pole of another magnet? [2 marks]

Section B (30 Marks)

Answer all the questions in this section.

1. A group of learners was asked to investigate whether sugar dissolves faster in hot water than in cold water. They were provided with two glass beakers, sugar, water, a stirring rod, a measuring cylinder and a thermometer. (a) Name the apparatus they should use to measure accurately the volume of water. (1 mark) (b) State two safety precautions they should observe while carrying out the experiment. (2 marks) (c) Why should they not use the thermometer to stir the mixture? (2 marks) [5 marks]

2. A mixture contains iron filings, salt and sand. Describe how you would separate all three substances and obtain them as pure solid samples. (5 marks) [5 marks]

3. A learner tested three different solutions, P, Q and R, using litmus paper. The observations are shown below. Solution P turned blue litmus paper red. Solution Q turned red litmus paper blue. Solution R did not change the colour of either blue or red litmus paper. (a) Identify whether each solution is acidic, basic or neutral. (3 marks) (b) Name one natural indicator that can be used to test for acids and bases. (1 mark) (c) State the colour of the natural indicator you have named in an acid. (1 mark) [5 marks]

4. Study the diagram of the human male reproductive system below. (a) Name the parts labelled A, B and C. (3 marks) (b) State one function of the part labelled D. (1 mark) (c) Name the organ that produces sperms. (1 mark) [5 marks]

5. Study the diagram of the human urinary system below. (a) Name the parts labelled A, B, C and D. (4 marks) (b) State the main function of the part labelled A. (1 mark) [5 marks]

6. (a) Name three components of a simple electric circuit. (3 marks) (b) State the function of a switch in a circuit. (1 mark) (c) Why is copper a suitable material for making electric wires? (1 mark) [5 marks]

MARKING GUIDE

Question	Expected answer / marking points	Marks
q1_01	B	2
q1_02	Any two: Wear safety goggles; Do not taste chemicals; Smell chemicals by wafting; Do not touch chemicals with bare hands; Keep chemicals away from flames. (1 mark each, max 2)	2
q1_03	A is a measuring cylinder/graduated cylinder. Use: measuring volume of liquids accurately. (2 marks: 1 for name, 1 for use)	2
q1_04	thermometer	2
q1_05	B	2
q1_06	A mixture is a substance made by combining two or more different materials without a chemical reaction/without changing their properties. Example: sand and water, salt and water, air, etc. (2 marks: 1 for definition, 1 for example)	2
q1_07	B	2
q1_08	acid	2
q1_09	A – ovary; B – oviduct/fallopian tube. (1 mark each, total 2)	2
q1_10	B	2
q1_11	Water and salts / urea (any two; 1 mark each)	2
q1_12	C	2
q1_13	electrical	2
q1_14	C	2
q1_15	They attract each other / they pull towards each other. (2 marks for correct statement)	2
q2_01	(a) Measuring cylinder (1 mark). (b) Any two: Wear safety goggles; handle hot glassware with tongs; do not taste solutions; ensure the work area is clean; do not run in the laboratory (2 marks). (c) The thermometer is delicate/for measuring temperature; stirring can break it or give a false reading. (2 marks for correct reasoning)	5
q2_02	1. Use a magnet to attract and remove iron filings from the mixture. (1 mark) 2. Add water to the remaining mixture and stir to dissolve the salt. (1 mark) 3. Filter the mixture to separate the sand as the residue. (1 mark) 4. Heat the filtrate (salt water) to evaporate the water, leaving salt crystals. (1 mark) 5. Dry/collect the three separated solids. (1 mark)	5
q2_03	(a) P – acidic (acid); Q – basic (base); R – neutral. (3 marks) (b) Red cabbage / hibiscus / any acceptable natural indicator (1 mark). (c) In an acid, red cabbage indicator turns red/pink (accept the correct colour for whichever indicator is named). (1 mark)	5
q2_04	(a) A – testes/testicles; B – sperm duct/vas deferens; C – urethra. (1 mark each, total 3) (b) D (penis) – passes urine out of the body / passes sperms into the female reproductive system during mating. (1 mark) (c) Testes. (1 mark)	5
q2_05	(a) A – kidney/kidneys; B – ureter; C – urinary bladder; D – urethra. (1 mark each, total 4) (b) A (kidney) – filters waste from the blood to produce urine. (1 mark)	5
q2_06	(a) Any three: battery/cell, bulb, switch, conducting wires, ammeter, etc. (1 mark each, max 3) (b) To open/close the circuit, allowing or stopping the flow of current. (1 mark) (c) Copper is a good conductor of electricity / allows current to flow easily. (1 mark)	5