



EXAMINATIONS COUNCIL OF ZAMBIA
GRADE SEVEN COMPOSITE EXAMINATION 2014
INTEGRATED SCIENCE
SUBJECT 4/1 60 MINUTES
TDISC4/G7/2014

- 1 Read these instructions carefully.
- 2 **DO NOT** turn this page before you are told. Your teacher will tell you when to turn this page to begin the questions.
- 3 There are **50** questions in this **INTEGRATED SCIENCE PAPER**. You will be given **EXACTLY 60 MINUTES** to do the questions.
- 4 For each question, four answers are given, but only one of the four is right. Work out which is the **BEST** answer. Then, on your **ANSWER SHEET**, mark the box completely by shading the answer space of the letter of your choice. If you had chosen answer D for a question, you would show it like this:-

A	B	C	☒
---	---	---	-------------------------------------
- 5 You must **SHADE** your answer spaces **COMPLETELY** and **DARKLY** using an HB pencil. If you have to change your answer, you must rub out the shading **VERY NEATLY** before shading the new one. **USE A CLEAN RUBBER.**
- 6 When you have finished one page, go straight on without waiting to be told. If you have time left at the end of the question paper, use it to check your work carefully.
- 7 Look at your **ANSWER SHEET**. On the top left hand side are boxes which should have Examination Year, your School Number and Examination Number. It should also say **Subject 4, Paper 1**.
- 8 Look at your **ANSWER SHEET** again. At the bottom left hand side, it should have your Surname, Forename, Subject **Integrated Science**, Name of Primary School and your Secondary School of Choice.
- 9 **PUT UP YOUR HAND NOW IF:** You have any question.
You have the wrong answer sheet.

You will **NOT** be able to ask questions once the examination has begun.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD.

USE ONLY AN HB PENCIL FOR YOUR ANSWERS.

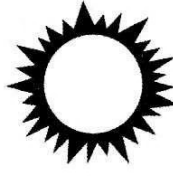
1 Study the diagrams below.



M



N



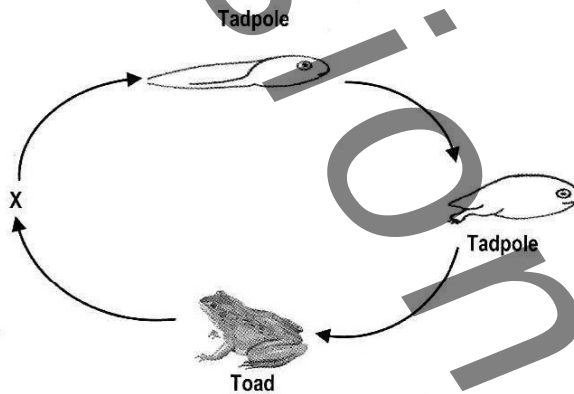
P



Q

Which of these sources of heat is natural?

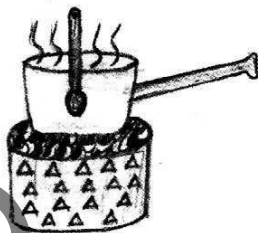
- A M
 - B N
 - C P
 - D Q
- 2 Which parts of a house allow air to enter?
- A Doors and walls
 - B Windows and air vents
 - C Roof and doors
 - D Walls and air vents
- 3 Study the diagram showing the life cycle of a frog.



What stage is represented by letter X in the above diagram?

- A Tadpole
- B Adult frog
- C Eggs
- D Young frog

- 4 A wooden spoon was left in a pot of boiling water as shown below.



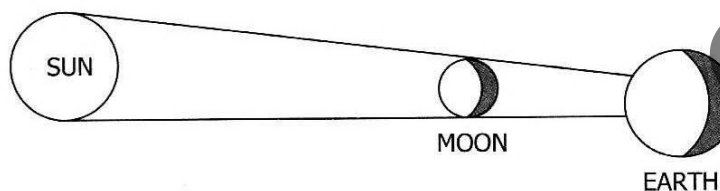
After 30 minutes the wooden spoon did not get hot. This was because it ...

- A had air around it.
 - B is a bad conductor of heat.
 - C was very thick.
 - D was very long.
- 5 The cheapest way of water treatment is ...
- A boiling.
 - B chlorination.
 - C filtration.
 - D salting.
- 6 Study the diagrams showing different symbols of electricity below.



Which of the above symbols represents a switch?

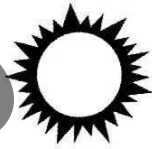
- A 1
 - B 2
 - C 3
 - D 4
- 7 People wash their bodies regularly in order to ...
- A get rid of germs and bacteria.
 - B please their friend.
 - C avoid changing colour.
 - D attract the opposite sex.
- 8 Study the diagram of an eclipse below.



What type of eclipse is shown above?

- A Stellar
- B Lunar
- C Solar
- D Global

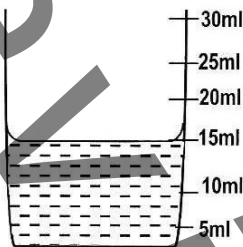
- 9 Study the diagram showing part of the solar system.



The planets **1**, **2** and **3** are ...

- | | 1 | 2 | 3 |
|----------|----------|----------|----------|
| A | Mercury | Venus | Earth |
| B | Pluto | Jupiter | Earth |
| C | Venus | Mercury | Earth |
| D | Mars | Uranus | Pluto |

- 10 Study the diagram below.



The volume of the liquid shown is ...

- A** 19ml.
B 17ml.
C 16ml.
D 15ml.
- 11 A tank carrying oil overturned and spilled oil in a pond. A week later, all the fish in the pond died. What was the most likely reason for this?
A oil contained excess nutrients.
B water is necessary for animals.
C oil in water blocked oxygen.
D fish was killed by other animals in the pond.
- 12 Which cosmetic is used to prevent dry flaky skin?
A Powder
B Shampoo
C Skin cream
D Toothpaste
- 13 Copper is used in transporting electricity because of its ...
A colour.
B conductivity.
C length.
D properties.
- 14 What happens when a person runs very fast?
A Only the pulse rate goes up.
B Only breathing rate goes up.
C Both the breathing and pulse rate go up.
D Both the breathing and pulse rate remain the same.

15 The following types of food were given to parents to feed their children:-

- 1 Bread and butter with black tea
- 2 Porridge with groundnuts.
- 3 Rice with sugar
- 4 Orange juice

Which of the food staffs listed above provided the children with proteins?

- A** 1
- B** 2
- C** 3
- D** 4

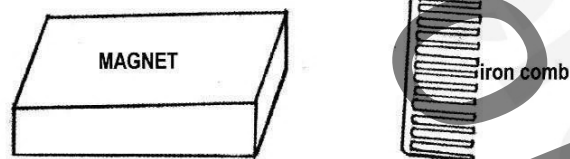
16 A pupil at a certain school started drinking alcohol heavily and later developed a problem with the ...

- A** rectum.
- B** pancreas.
- C** lungs.
- D** liver.

17 Which of the following animals lives part of its life in water?

- A** Amphibian
- B** Livestock
- C** Reptile
- D** Vertebrate

18 Study the diagram below.



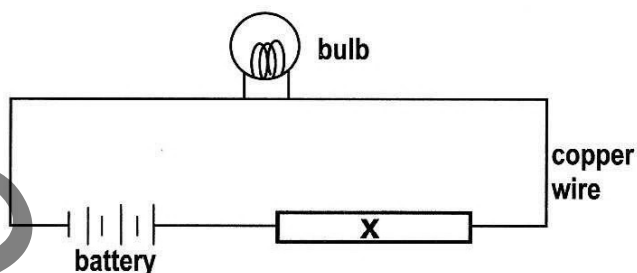
Which of the following describes what would happen between the two?

- A** They would repel.
- B** There would be attraction between them.
- C** The magnetic force in the magnet would be weakened.
- D** There would be no attraction between them.

19 What group of animals is a lizard in?

- A** Reptile
- B** Mammal
- C** Fish
- D** Amphibian

- 20 In the diagram below, the bulb will not light if **X** was a piece of ...

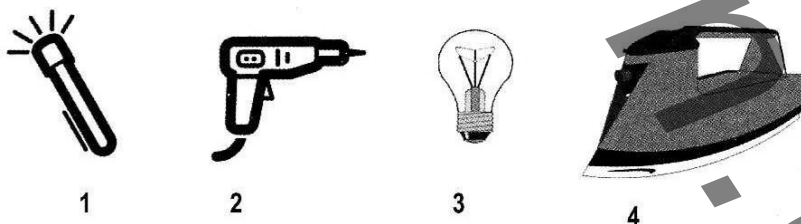


- A aluminium.
 - B iron.
 - C copper.
 - D wood.
- 21 Study the table below carefully

GROUP A	GROUP B
Makes it easier to provide food, water and protection	More difficult to keep animals clean
Livestock is easier to manage.	Disease is more likely to spread
Require less space than letting animals wonder freely	Animals will not be able to find enough to eat.

Which of the following shows the classification of group A and B?

- A Both group A and B are advantages.
 - B Both group A and B are disadvantages.
 - C Group A are advantages while group B are disadvantages.
 - D Group B are advantages while group A are disadvantages.
- 22 Study the diagrams below carefully.



Which of the devices converts electrical energy to mechanical energy?

- A 1
 - B 2
 - C 3
 - D 4
- 23 When water is polluted by oil spillage, it may block the root hairs and this causes plants to ...
- A absorb much water.
 - B conserve water.
 - C dry up.
 - D grow well.

- 24 Most people who abuse drugs do it because of ...
- A not being clever.
 - B shyness.
 - C stubbornness.
 - D peer pressure.
- 25 A woman who was pregnant was drinking heavily. The alcohol affected the baby who was born ...
- A with low birth weight.
 - B with HIV and AIDS.
 - C addicted to alcohol.
 - D very big.
- 26 Flowers with large, brightly coloured petals and a nice scent are pollinated by ...
- A animals.
 - B insects.
 - C animals and wind.
 - D wind and insects.
- 27 As an object is being carried from earth into space its weight ...
- A decreases.
 - B is maintained.
 - C is multiplied.
 - D increases.
- 28 Insects that damage plants and crops are known as ...
- A bacteria.
 - B hosts.
 - C pests.
 - D parasites.
- 29 The method of dispersal for the seed shown in the diagram is ...



- A animal.
 - B explosion.
 - C water.
 - D wind.
- 30 A First Aid Kit is a set of items that are used to treat ...
- A wounds in hospitals.
 - B HIV and AIDS patients.
 - C Medical emergencies.
 - D burns only.

31 When people who abuse drugs stop taking them, they feel sick and nervous. These are symptoms of ...

- A** alcoholism.
- B** addiction.
- C** malnutrition.
- D** tolerance.

32 Boiling drinking water can prevent the spread of ...

- A** cholera and bilharzia.
- B** cholera and dysentery.
- C** malaria and dysentery.
- D** malaria and bilharzia.

33 Cattle is not reared in most parts of Eastern province because it ...

- A** is infested with ticks.
- B** has no market there.
- C** has many cattle rustlers.
- D** is infested with tsetse flies.

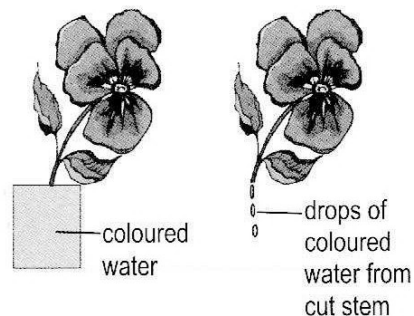
34 The following is a list of cosmetics:-

- 1 Nail varnish
- 2 Perfumes
- 3 Skin lightening cream
- 4 Tooth paste

Which of them is a basic cosmetic?

- A** 1
- B** 2
- C** 3
- D** 4

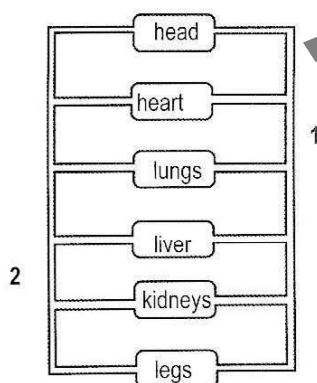
35 Study the diagram below.



The diagram shows that ...

- A** mineral salts are carried by the stem from roots to leaves.
- B** mineral salts are carried by the stem from leaves to roots.
- C** food is made in the leaves.
- D** food is made in the stem.

- 36** Which of the following is used to weigh babies at under-five clinics?
- A** Lever
 - B** See-saw
 - C** Beam balance
 - D** Spring balance
- 37** If a force is applied on a stationary object, it will ...
- A** move in the direction of the force.
 - B** move in the opposite direction of the force.
 - C** not move in any direction.
 - D** move forward and then backward.
- 38** Objects in the universe which produce their own light are said to be ...
- A** reflective.
 - B** planet.
 - C** luminous
 - D** space.
- 39** The main crops grown by subsistence farmers in Zambia are groundnuts, cassava, maize and sorghum. Which of the above crops are grown in areas where there is hardly any rain?
- A** Groundnuts and maize
 - B** Groundnuts and sorghum
 - C** Maize and cassava
 - D** Sorghum and cassava
- 40** Study the diagram of the circulatory system shown below.



The parts labelled **1** and **2** are ...

- | 1 | 2 |
|----------------------|--------------|
| A aorta | capillaries. |
| B arteries | veins. |
| C capillaries | aorta. |
| D veins | arteries. |
- 41** A child complained of weakness, dizziness and shortness of breath. The medical doctor at the hospital told the parents that their child was suffering from ...
- A** anaemia and should eat rich in iron.
 - B** rickets and should eat food rich in calcium.
 - C** scurvy and should eat lots of fresh fruit and vegetables.
 - D** goitre and should eat a lot of proteins.

- 42 Study the diagram below showing stages in copper mining.



What process is taking place at **X**?

- A Crushing
 - B Drilling
 - C Smelting
 - D Filtration
- 43 Soil from a garden was weighed, then dried and weighed again. The mass had gone ...
- A down because water evaporated.
 - B up because water evaporated.
 - C down because organic matter was completely burnt.
 - D up because the process of drying produced steam increasing the mass of soil.
- 44 Organic matter in soil contains mainly ...
- A sand and clay particles.
 - B gravel and clay soil.
 - C minerals and coarse soil.
 - D decayed plant and animal matter.
- 45 Study the list below carefully.
- 1 Blood carries oxygen to all parts of the body.
 - 2 Blood carries carbon dioxide to all parts of the body.
 - 3 Blood carries nutrients to all parts of the body.
 - 4 Blood carries waste from all parts of the body.
- Which of the above is not the function of blood?
- A 1
 - B 2
 - C 3
 - D 4
- 46 What is the percentage of inert gases in the atmosphere?
- A 0.97%
 - B 78%
 - C 21%
 - D 0.03%
- 47 Food is absorbed mainly in the ...
- A lungs.
 - B stomach.
 - C large intestine.
 - D small intestine.
- 48 The openings found on the skin are called ...
- A pores.
 - B epidermis.
 - C sebum.
 - D stomata.

- 49 Given that a block of wood is 10cm long, 5cm wide and 2cm high. Calculate the volume of the block.
- A 13cm
 - B 17cm^3
 - C 100cm^3
 - D 100cm
- 50 A glass is filled with water and held upside down on a piece of card board. When the glass is lifted, the card board sticks to the glass. What does this tell us about air?
- A It is a mixture of gases.
 - B It has pressure.
 - C It is odourless.
 - D It is tasteless.

STOP! PLEASE GO BACK AND CHECK YOUR WORK.