



EXAMINATIONS COUNCIL OF ZAMBIA

GRADE SEVEN COMPOSITE EXAMINATION 2015

Integrated Science

Subject: 4/1

60 minutes

TD/SC4/G7/2015

- 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:-

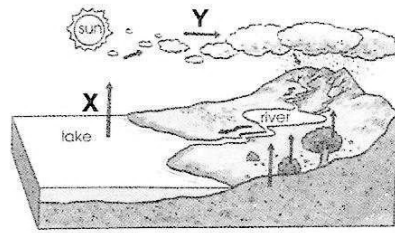


- 5 You must **shade** your answer spaces **completely** and **darkly** using an HB pencil. If you have to change your answer, you must rub out the shading **very neatly** before shading the new one. **Use a clean rubber.**
- 6 When you have finished one page, go straight on without waiting to be told. 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.

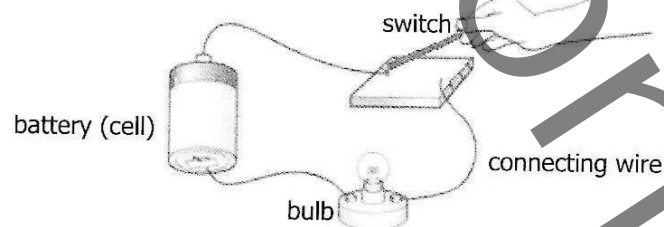
**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD.
USE ONLY AN HB PENCIL FOR YOUR ANSWERS.**

- 1** Why is the process of water purification carried out in towns and cities?
To ...
- A** remove poison.
 - B** remove suspended particles.
 - C** make it safe for drinking.
 - D** make it tasty.
- 2** Which activities are important for personal hygiene?
- A** Bath twice a day and brush teeth after eating.
 - B** Eat balanced meals and visit a dentist.
 - C** Use perfume all the time and wear bracelets.
 - D** Wear new clothes and exercise regularly.
- 3** Which of the following parts of fish allows dissolved oxygen in water to enter and carbon dioxide and water vapour to come out?
- A** Skin
 - B** Nose
 - C** Mouth
 - D** Gills
- 4** Which of the following is part of the digestive system?
- A** Heart
 - B** Kidneys
 - C** Lungs
 - D** Stomach
- 5** Which of the animals below are kept by Zambian farmers?
- A** Cattle, pigs and goats
 - B** Sheep, rabbits and pigs
 - C** Cattle, sheep and goats
 - D** Pigs, rabbits and cattle
- 6** A school nurse used a phone to inform a parent whose child became ill at school. Which of the following was involved in the telephone conversation?
- A** Wire vibration
 - B** Liquid vibration
 - C** Light vibration
 - D** Air vibration
- 7** Which of the following is a domestic animal?
- A** Impala
 - B** Goat
 - C** Lion
 - D** Zebra

- 8 Study the diagram of the rain cycle shown below.



- The processes taking place at **X** and **Y** in this order are ...
- A evaporation and condensation.
 - B condensation and evaporation.
 - C precipitation and evaporation.
 - D condensation and precipitation.
- 9 Which of the following is **not** a way by which HIV is transmitted?
- A Sexual contact with infected person.
 - B Mother to child transmission.
 - C Greeting and hugging an infected person.
 - D Blood transfusion.
- 10 Which of the following is a balanced meal?
- A Fish, Kapenta and Cabbage
 - B Mealie meal, Fish and Cabbage
 - C Rice, Beef and Kapenta
 - D Rice, Mealie meal and Beef
- 11 Study the diagram below showing a circuit.

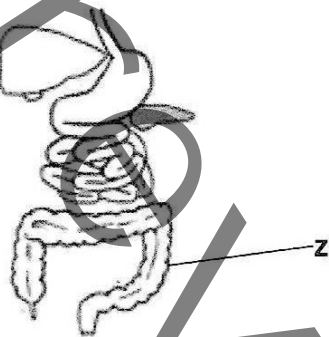


- What will happen to the circuit above when the switch is closed?
- A The bulb will light up.
 - B There will be a low voltage in the circuit.
 - C The hand will receive a shock.
 - D There will be a short circuit.
- 12 Which of the following instruments is used to measure volume?
- A Balancing beam
 - B Measuring cylinder
 - C Spring balance
 - D See-Saw

13 The transfer of pollen grains from an anther to a stigma is called ...

- A fertilization.
- B pollination.
- C dispersal.
- D germination.

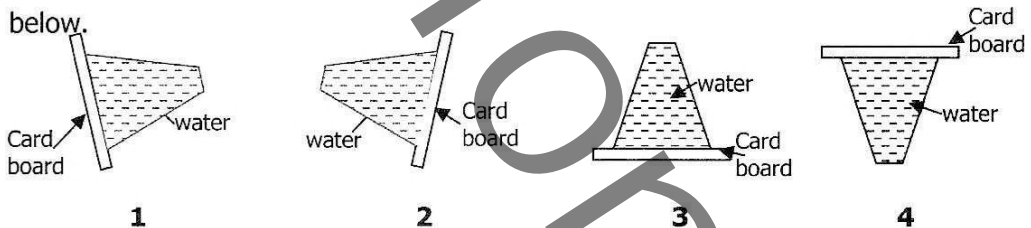
14 Study the diagram of the digestive system below.



What happens to the food at **Z**?

- A Proteins are absorbed from food.
- B Water is absorbed from food.
- C Fats are absorbed from food.
- D Sugar is absorbed from food.

15 A Grade 6 pupil carried out an experiment to show that air exerts pressure as shown below.



Which of the diagrams will exert the greatest pressure on the cardboard?

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

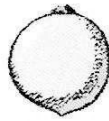
16 A nurse working for a certain home for the aged regularly collected the old peoples dirty linen, washed and ironed them after drying. Why did the nurse wash the linen regularly? To ...

- A give the body a pleasant smell.
- B make the body clean.
- C protect the body from cold.
- D remove dirt and bad odours.

- 17 Study the following collection of different foodstuffs.



Apple



Orange



Mango



Milk

What nutrients are found in the food above?

- A** Carbohydrates and proteins
B Fats and proteins
C Fats and carbohydrates
D Minerals and vitamins
- 18 Which of the following animals has an air sac as an internal organ?
A Tortoise
B Lizard
C Fish
D Crocodile
- 19 After accidentally cutting the lower part of the finger with a razor blade, a pupil covered the cut part using a plaster. Why did the pupil do that? To ...
A reduce the pain.
B reduce the bleeding.
C stop the pain.
D stop the bleeding.
- 20 Which of the following shows the correct order in the rain cycle?
A Rain, clouds and vapour.
B Clouds, vapour and rain.
C Vapour, clouds and rain.
D Vapour, rain and clouds.
- 21 Which of the following is NOT true about space exploration?
A Learning what is exactly in the space.
B Learning the lives of other humans in the space.
C Searching where human beings can live one day.
D Searching for resources which may be used.
- 22 A township was located near a mining site. The residents of the township complained because there were so many cases of bronchitis. How was the problem related to the mining activity?
A Untreated water from the mines affected people's digestive system.
B Polluted air affected the people's respiratory system.
C The rocks from the mines destroyed the people's homes.
D Noise from the mining site disturbed the people.

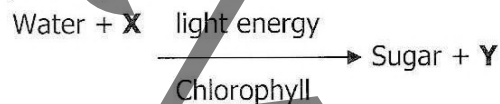
23 After applying cosmetics on the body for a week a pupil noticed that the skin was becoming softer. Which of the following cosmetics did the pupil use?

- A Deodorant
- B Lotion
- C Liquid foundation
- D Powder

24 Objects on the moon have no weight. This is due to ...

- A lack of gravitational force.
- B increased air pressure.
- C bare and stony space.
- D windy and rainy atmosphere.

25 Study the equation below:



What do the letters X and Y in the equation represent?

- | | X | Y |
|---|----------------|----------------|
| A | Oxygen | carbon dioxide |
| B | Hydrogen gas | oxygen |
| C | Carbon dioxide | oxygen. |
| D | Carbon dioxide | hydrogen gas. |

26 A Grade 7 class studying vegetative propagation prepared the school garden in order to produce a crop vegetatively. Which of the planting materials did they use?

- A Cassava stem
- B Cabbage flower
- C Sunflower seed
- D Tomato leaf

27 Damage of the liver can result from ...

- A excessive intake of alcohol.
- B injecting heroin into the vein.
- C smoking dagga.
- D sniffing petrol.

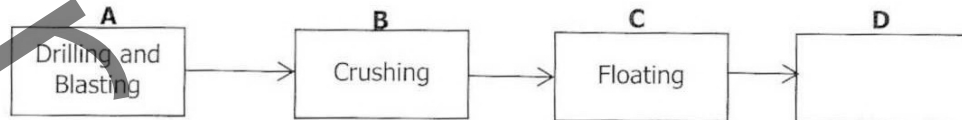
28 Which of the following types of teeth is used for cutting and biting food?

- A Canine
- B Incisor
- C Molars
- D Premolars

29 Which of the following is a sign of an airborne disease?

- A Hair changes colour.
- B Watery stool.
- C Itching and spots.
- D Difficulty to breathe.

30 Below is a process in which Copper is extracted.
What process takes place at **D**?



- A Electrolysis
- B Extraction
- C Separation
- D Smelting

31 Which of the following diseases is most likely to affect cattle in hot tropical regions?

- A Anthrax
- B Foot and mouth disease
- C Tuberculosis
- D Trypanosomiasis

32 Study the diagram of the tooth below.



Which type of tooth is in the diagram above?

- A Incisor
- B Canine
- C Premolar
- D Molars

33 A Grade 7 pupil failed to fix two small magnetic parts together. What could have been the problem?

- A He was not strong enough to fix them.
- B The magnets were worn out.
- C The two parts being fixed had like poles.
- D The two parts being fixed had unlike poles.

- 34 Which of the following is a disadvantage of crowding livestock?
- A Disease is more likely to spread.
 - B makes it easier to treat disease.
 - C Providing food, water and protection is easy.
 - D Requires less space than letting animals wander freely.

- 35 Study the diagram shown below.

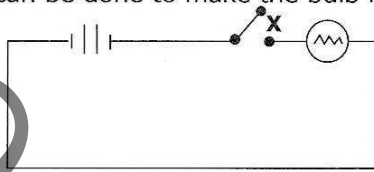


The plant above reproduces by ...

- A seeds.
 - B spores.
 - C stems.
 - D suckers.
- 36 Which of the following statements states the difference between luminous and reflective surfaces?
- A Luminous surfaces do not produce light while reflectives do.
 - B Luminous surfaces receive light while reflectives do not.
 - C Reflective surfaces do not produce light while luminous do.
 - D Reflective surfaces do not receive light while luminous do.
- 37 Caffeine and cocaine are examples of ...
- A inhalants.
 - B hallucinogens.
 - C stimulants.
 - D sedatives.
- 38 A group of young people in a certain township had a habit of sniffing petrol, cigarette lighter liquid, varnish, paint thinners and the contents of aerosol cans. How would they feel after sniffing these substances?
- A Dizziness and nauseous
 - B Drowsiness and loss of coordination
 - C Feeling things that are not real
 - D Panicking and fighting
- 39 Which of the following materials can be attracted by a magnet?
- A Metal
 - B Plastic
 - C Rubber
 - D Wood

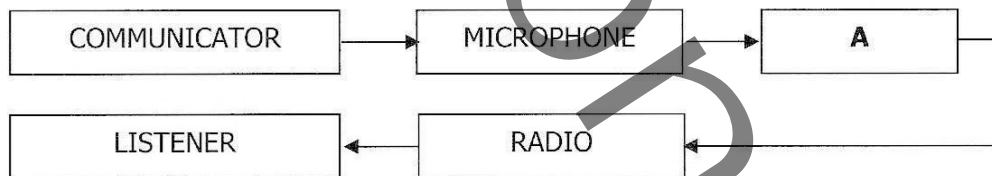
- 40 Study the diagram below of a simple circuit whose bulb did NOT light after switching the part marked **X**.

What can be done to make the bulb light?



- A** Add another switch in the circuit.
B Put the bulb between the two cells.
C Turn both cells round.
D Turn one of the cells round.
- 41 Cooking sticks are always made of wood because wood is a ... of heat.
A good conductor
B good reflector
C poor insulator
D poor conductor
- 42 A boy sat near a brazier during the cold season. After some minutes, he felt warm. This was because ...
A he was a good conductor of heat.
B he was a good insulator of heat.
C heat reached him by radiation.
D heat reached him by convection.

- 43 The diagram below shows communication by radio.

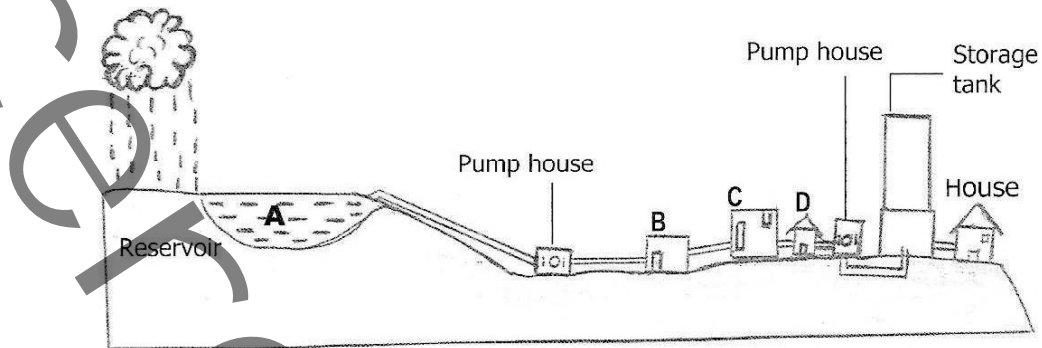


Which of the communication installations is supposed to be at **A**?

- A** Satellite
B Transmitter
C Earth station
D Loud speaker
- 44 Which of the following organs is correctly paired with its function?

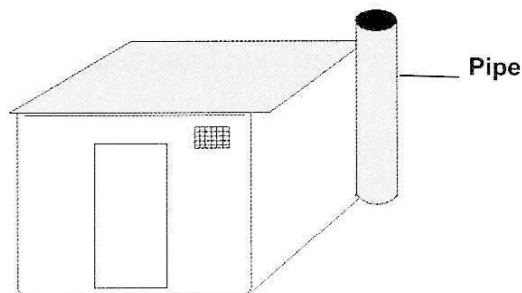
	Organ	Function
A	Heart	Purification of blood
B	Lungs	Pumping of blood
C	Skin	Absorption of heat
D	Stomach	Storage of food

- 45 The diagram below shows the movement of water from a reservoir to the water works and finally a house.



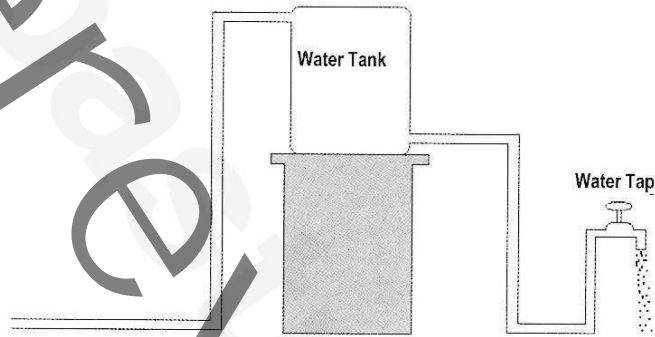
At which of the points marked **A**, **B**, **C** and **D** are the germs killed?

- 46 The amount of water vapour in the atmosphere is called ...
- A rainfall.
 - B humidity.
 - C condensation.
 - D evaporation.
- 47 Name the sweet liquid produced by a flower.
- A Anther
 - B Style
 - C Nectar
 - D Pollen
- 48 The correct order of energy changes at a hydro-electric power station (HEP) when electricity is generated are ...
- A electrical → potential → kinetic → mechanical.
 - B mechanical → electrical → kinetic → potential.
 - C chemical → mechanical → kinetic → electrical.
 - D potential → kinetic → mechanical → electrical.
- 49 What could be the purpose of the pipe behind the toilet?



- A To show people the presence of the toilet.
- B For rain water to flow down into the pit.
- C It acts as a way for the escape of stale air.
- D It is where **cockroaches** and rats leave the toilet.

50 Study the diagram below carefully:



Why is the tank placed higher than the tap?

- A To reduce the water pressure.
- B To increase the water pressure.
- C To make sure the water is kept clean.
- D So that it can be seen by everyone.



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