



02923975



EXAMINATIONS COUNCIL OF ZAMBIA

GRADE SEVEN COMPOSITE EXAMINATION – 2022

Integrated Science

SUBJECT 4/1

60 MINUTES

TD/INT3/G7/2022

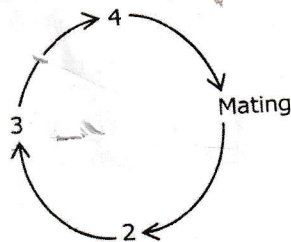
- 1 Read these instructions carefully.
- 2 **Do not** turn this page before you are told. Your teacher will tell you when to turn this page to begin the questions.
- 3 There are **50** questions in this **Integrated Science Paper**. You will be given **exactly 60 minutes** to do the questions.
- 4 For 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 Which of the following water treatment systems makes water safe to drink?
 - A Boiling
 - B Decantation
 - C Filtration
 - D Settlement tank
- 2 Which of the following materials are good conductors of heat?
 - A Aluminium
 - B Glass
 - C Grass
 - D Plastic
- 3 What causes sound?
 - A Energy
 - B Heat
 - C Vibration
 - D Wind
- 4 People can tell when a woman is pregnant because of...
 - A breaking of the voice.
 - B broadening of the shoulders.
 - C growing of pubic hair.
 - D protrusion of the stomach.
- 5 Which of the following is a metal?
 - A Carbon
 - B Hydrogen
 - C Oxygen
 - D Zinc
- 6 Which of the following contains the best sources of vitamins and minerals?
 - A Fish and vegetables
 - B Fruits and beef
 - C Oils and Proteins
 - D Vegetables and Fruits
- 7 Study the following life cycle of an animal.



Chile
one
Mr. Zambia

Which stage is at 2?

- A Breeding
- B Feeding
- C Growing
- D Laying of eggs

8 An introduction of fresh fruits in a person's diet helps to stop gum bleeding because fresh fruits are rich in...

- A mineral salts.
- B roughage.
- C Vitamin C.
- D Vitamin D.

9 Which of the following is carried by blood around the body?

- A Oxygen
- B Sweat
- C Undigested food
- D Urine

10 What is the function of a fuse in an electrical appliance?

- A Measure current
- B Measure voltage
- C Power up electrical appliances
- D Protect electrical appliances from damage

11 Study the diagrams shown.

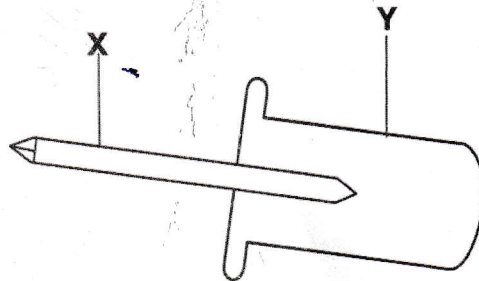


Which of the plants is a non-flowering plant?

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

- 12** When people wake up in the morning, they open the windows to allow ...
- A** air circulation.
 - B** dust to move out.
 - C** sunlight to move in.
 - D** warm air to move in.

- 13** Study the following diagram of an electrical screwdriver tester.



What are the best materials for making parts **X** and **Y**?

	X	Y
A	Metal	Metal
B	Metal	Non metal
C	Non metal	Metal
D	Non metal	Non metal

- 14** In winter, many suffocation accidents are reported because some people sit near a brazier in a...
- A** brightly lit room.
 - B** poorly lit room.
 - C** poorly ventilated room.
 - D** spacious room.
- 15** Which of the following planets is closer to the sun and has no moon?
- A** Earth
 - B** Mars
 - C** Mercury
 - D** Venus
- 16** Which of the following shows the correct process of photosynthesis?
- A** Carbon dioxide + water $\xrightarrow[\text{Chlorophyll}]{\text{Light energy}}$ Sugar + Oxygen
 - B** Carbon dioxide + water \longrightarrow Sugar + Oxygen
 - C** Sugar + Oxygen $\xrightarrow[\text{Chlorophyll}]{\text{Light energy}}$ Carbon dioxide + water
 - D** Sugar + Oxygen \longrightarrow Carbon dioxide + water

17 What is the difference between copper and carbon dioxide?

	Copper	Carbon dioxide
A	A metal	Non metal
B	A gas	A gas
C	Non metal	Metal
D	Solid	Liquid

18 Most babies born from mothers who do not eat a variety of food during pregnancy...

- A** become disabled.
- B** become dull at school.
- C** have high birth weight.
- D** have low birth weight.

19 Which of the following shows the difference between viruses and bacteria?

	Viruses	Bacteria
A	Bigger	Smaller
B	Easier to control	More difficult to control
C	Invisible	Visible
D	Smaller	Bigger

20 Which of the following components of blood is responsible for defence of the body against disease?

- A** White blood cells
- B** Red blood cells
- C** Plasma
- D** Platelets

21 What does the child's clinic card show?

- A** Safe keeping and scale used
- B** Nutrients and deficiency problems
- C** Medicines and height of the child
- D** Age growth curve and weight

22 People who abuse drugs usually end up being ...

- A** addicted.
- B** mad.
- C** poor.
- D** sick.

23 Why is overcrowding of animals a bad practice? It ...

- A encourages disease outbreak.
- B increases growth rate of animals.
- C promotes mating among animals.
- D reduces cases of inbreeding.

24 Which of the following plants is correctly paired with its method of propagation?

	Plant	Method of Propagation
A	Bananas	Suckers
B	Beans	Tubers
C	Cassava	Runners
D	Irish potatoes	Seeds

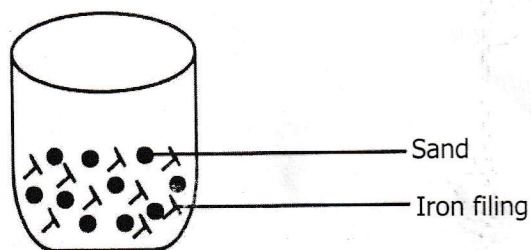
25 One of the ways in which insects are useful is that they...

- A assist in pollination.
- B prevent diseases.
- C reproduce faster.
- D suck nectar.

26 Which of the formulae is used to find the volume of regular objects?

- A $L \times b$
- B $L + b$
- C $L \times b \times h$
- D $L + b + h$

27 Study the following diagram.



Which method would learners use to remove iron filings from the mixture shown?

- A Distillation
- B Evaporation
- C Filtration
- D Magnetism

36 Which of the following is a disadvantage of chemical fertilisers? They ...

- A improve soil fertility.
- B increase the yield of crops.
- C make plants resistant to disease.
- D make the soil more acidic.

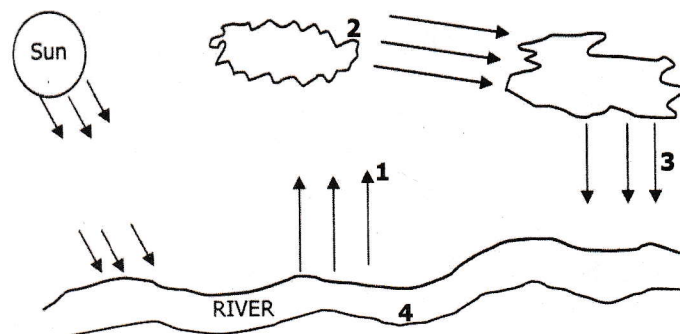
37 Study the following list of animals.

- 1 Cow
- 2 Duck
- 3 Tortoise
- 4 Toad

To which group do the animals belong?

- A Invertebrate animals
- B Mammals only
- C Reptiles only
- D Vertebrate animals

38 Study the diagram of the water cycle.



Where does condensation take place?

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

39 The breaking down of food to small soluble particles is important because it enables the...

- A absorption of digested food.
- B absorption of undigested food.
- C transportation of digested food.
- D transportation of undigested food.

- 40 Which of the following is a social challenge for people living with Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS)?
- A Misunderstanding their own HIV status
 - B Lack of voluntary counseling and testing (VCT) services in the country
 - C Frequent sicknesses and hospital visits
 - D Discrimination from friends and family
- 41 One of the basic needs of livestock is ...
- A care.
 - B cleanliness.
 - C security.
 - D shelter.
- 42 Which of the following defines mass?
- A Amount of matter in an object.
 - B Pull of gravity on an object.
 - C Push of gravity on an object.
 - D Volume of an object.
- 43 A learner planted three sets of seeds as follows:
- Set 1 Dry soil – 5 seeds
Set 2 Moist soil – 5 seeds
Set 3 Surface – 5 seeds
- After a few days ...
- A all the seeds in Set 1 germinated.
 - B all seeds in Set 2 germinated.
 - C 2 seeds from Set 1 and Set 2 germinated.
 - D 2 seeds in Set 3 germinated.
- 44 A farmer listed methods of retaining water in the soil. Which of the following is **not** supposed to be on the farmer's list?
- A Draining
 - B Mulching
 - C Shading
 - D Weeding
- 45 During mouth to mouth resuscitation, a cloth is used to...
- A allow more air to flow freely.
 - B allow more oxygen than carbon dioxide.
 - C prevent dust from entering the victim.
 - D prevent the spread of germs.

32 Which of the following organs is associated with the digestion of food?

- A Bladder
- B Kidneys
- C Lungs
- D Pancreas

33 The following are changes that occur at puberty in human beings.

- 1 Increase in weight and height
- 2 Broadening of shoulders and chest
- 3 Beginning of wet dreams
- 4 Appearance of pubic hair

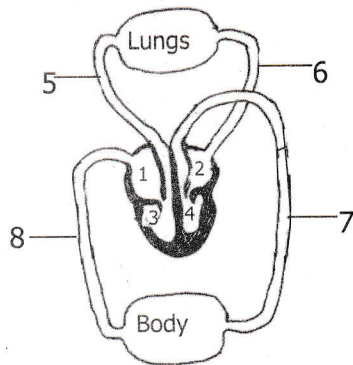
Which of the following describes the changes?

- A Emotional changes in boys
- B Emotional changes in girls
- C Physical changes in boys
- D Physical changes in girls

34 Which type of energy does an object which is **not** moving possess?

- A Chemical energy
- B Electrical energy
- C Kinetic energy
- D Potential energy

35 The following is a diagram of the blood circulatory system.



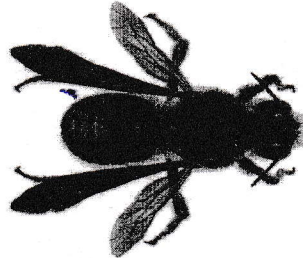
The correct direction of blood flow is ...

- A 7 → 8 → 5 → 6
- B 7 → 5 → 6 → 8
- C 5 → 8 → 7 → 6
- D 5 → 7 → 8 → 6

28 In Zambia, drug users mostly abuse...

- A khat.
- B heroin.
- C dagga.
- D cocaine.

29 Study the following diagram of an insect.



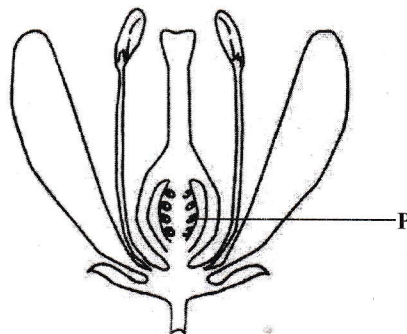
How many body parts does the insect have?

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

30 Which of the following describes the composition of blood?

- A Arteries and plasma
- B Arteries and veins
- C Blood cells and plasma
- D Blood cells and veins

31 Study the following diagram of a flower.



The part **P** of the flower ...

- A attracts insects for pollination.
- B becomes the fruit after fertilisation.
- C produces pollen for pollination.
- D receives pollen during pollination.

46 Which of the following groups are common deficiency diseases in the community?

- A Bilharzia, malaria and scabies
- B Cholera, AIDS and influenza
- C Kwashiorkor, marasmus and scurvy
- D Measles, Tuberculosis and mumps

47 Why does an object have different weights on earth and on the moon?

- A There is more force of gravity on earth than on the moon.
- B There is more force of gravity on the moon than on earth.
- C There is too much wind on earth than on the moon.
- D The mass of an object changes when taken to the moon.

48 What causes day and night?

- A Movement of the moon
- B Movement of the sun
- C Revolution of the earth
- D Rotation of the earth

49 Which of the following is **not** associated with teenage pregnancies?

- A Addiction
- B Cervical cancer
- C Sexually transmitted infections (STIs) and HIV
- D Trauma

50 The movement of heat in a vacuum is called ...

- A conduction.
- B convection.
- C radiation.
- D solidification.

STOP! PLEASE CHECK ALL YOUR WORK CAREFULLY.