

EXAMINATIONS COUNCIL OF SWAZILAND
Swaziland Primary Certificate Examination

SCIENCE

513/01

Paper 1 Multiple Choice

November 2018

1 hour

Additional Materials required: Multiple Choice Answer Sheet
Soft clean eraser
Soft pencil (type B or HB recommended).

READ THESE INSTRUCTIONS FIRST

Write in soft pencil.

Write your Centre number, candidate number and name in the spaces provided on the answer sheet unless this has been done for you.

There are **forty (40)** questions on this paper. Answer **all** questions. For each question there are four possible answers **A, B, C** and **D**. Choose the **one** you consider correct and record your choice on the separate Answer Sheet.

Each correct answer will secure one mark. A mark will not be deducted for a wrong answer. Any rough work should be done in this question paper, **not** on the answer sheet.

Read and follow the instructions on the separate Answer Sheet carefully.

This document consists of **13** printed pages and **3** blank pages.

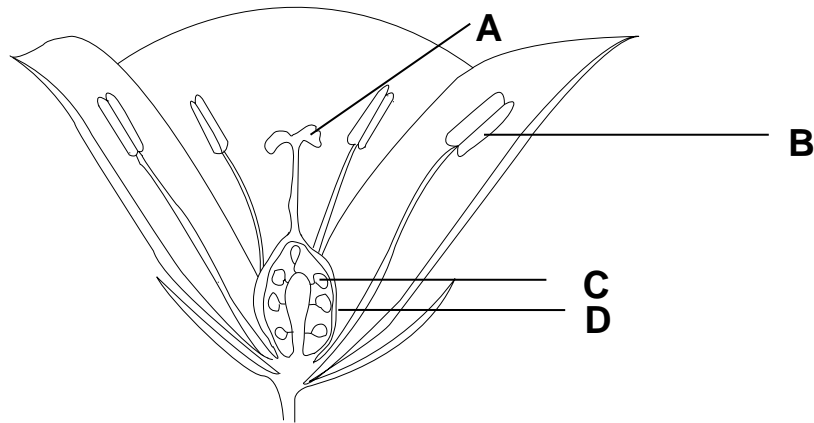
1 Which is the name of the gas used in fire extinguishers?

- A carbon dioxide
- B nitrogen
- C oxygen
- D water vapour

2 What is the unit of volume?

- A cm^3
- B cm
- C g
- D g/cm^3

3 The diagram below shows an insect pollinated flower.



Which letter **A**, **B**, **C** and **D** shows where pollen is produced?

Questions 4 and 5 refer to the food chain below:

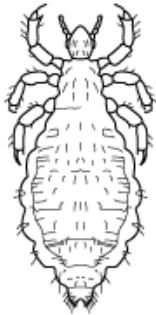
cabbage → snail → bird → man

- 4 Which organism is a secondary consumer?
- A bird
 - B cabbage
 - C man
 - D snail
- 5 Which organism has the lowest energy in the food chain?
- A bird
 - B cabbage
 - C man
 - D snail
- 6 Sugar is mixed with water.
What is the best word that describes what happens to the sugar in the water?
- A dissolves
 - B melts
 - C mixes
 - D condenses
- 7 Which of the following materials would be attracted by a magnet?
- A book
 - B candle
 - C glass
 - D nail

8 Happy's jersey makes some crackling sound when she pulls it off her body. Why does the jersey produce the crackling sound?

- A The jersey is hot and the air is cold.
- B The jersey was not properly rinsed.
- C The jersey has static electricity.
- D The jersey has become magnetic.

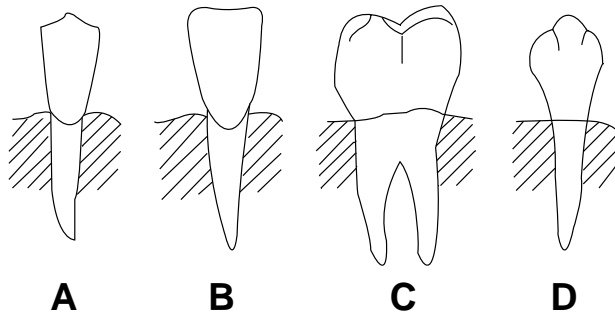
9 An invertebrate animal is shown below.



The number of legs tell us that the invertebrate is...

- A a spider
- B an insect
- C an arachnid
- D a grasshopper

10 The teeth shown below are found in the human mouth.



Which of the tooth **A**, **B**, **C** and **D** shown is an incisor?

- 11** Why is gonorrhoea called a sexually transmitted infection?
- A** It affects both males and females.
 - B** It affects males more than females.
 - C** It is transmitted through sexual intercourse.
 - D** It is transmitted through sharing under wear.
- 12** What is the second planet that comes after the Earth as you move away from the sun?
- A** Jupiter
 - B** Mars
 - C** Pluto
 - D** Venus
- 13** Which of the following substances would turn blue litmus paper red?
- A** cooking soda
 - B** eno
 - C** lemon juice
 - D** soap
- 14** A ripe guava falls from a tree.
What form of energy does it possess while it is hanging on the tree?
- A** electrical energy
 - B** kinetic energy
 - C** magnetic energy
 - D** potential energy

15 Sihle, who is wearing shoes that have rubber soles, falls instead of sliding smoothly.

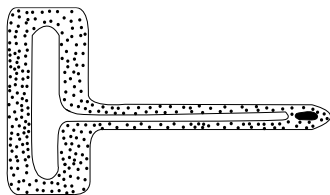
What is the force that causes Sihle to fall?

- A** friction
- B** gravity
- C** sliding
- D** static

16 What is produced by the earth as it spins on its axis?

- A** a year
- B** a month
- C** day and night
- D** seasons of the year

17 Two cells are shown below. The first one is a plant cell and the second one is an animal cell.



plant cell



animal cell

Which of the statements is true about these cells?

- A** Both plant and animal cells have a cell wall.
- B** Both plant and animal cells have a nucleus.
- C** Plant cells have a small nucleus while the animal cells have a big one.
- D** Plant cells have a small vacuole while the animal cells have a large one.

18 What are the physical properties common to all gases?

	volume	ability to flow	shape
A	fixed volume	does not flow	definite shape
B	fixed volume	flow	no definite shape
C	not fixed	does not flow	definite shape
D	not fixed	flow	no definite shape

19 Water vapour evaporates from rivers to the atmosphere to form rain. What is the name of the process that occurs in the clouds to form rain?

- A** condensation
- B** evaporation
- C** heating
- D** melting

20 What is the name of the instrument that is used to measure wind speed?

- A** cup anemometer
- B** thermometer
- C** wind gauge
- D** wind vane

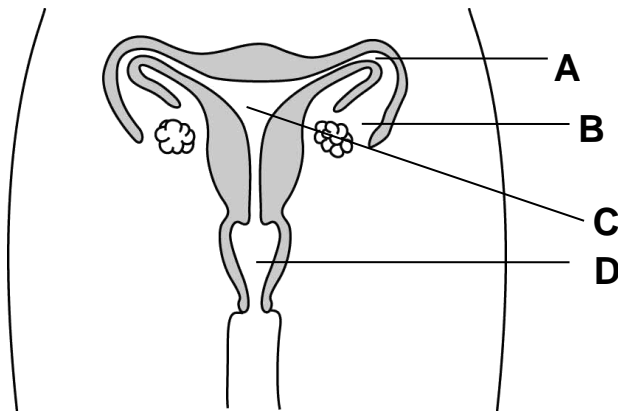
21 The following lists consist of different substances. Which of the lists consists of **only** elements?

- A** copper, oxygen, plastic, gold
- B** hydrogen, water, iron, silver
- C** oxygen, iron, gold, silver
- D** carbon, iron, salt, gold

- 22** Different weather conditions affect our lives.
Which of the following is the **worse** effect of bad weather to our lives?
- A** In winter it becomes very cold and we have to wear warm coats.
 - B** In summer it becomes too hot and we have to use umbrellas for shade.
 - C** After a volcanic eruption nutrients are released to fertilise the land.
 - D** When there are floods crops are destroyed and we are left without food.
- 23** Which of the following statements about energy is false?
- A** Light energy can be produced from heat energy.
 - B** Electricity can be used to produce heat energy.
 - C** Energy cannot be created or destroyed.
 - D** Energy cannot be created but can be destroyed.
- 24** Which of the processes is an example of a physical change?
- A** fire wood burning
 - B** peanuts crushed
 - C** meat roasting
 - D** melting of ice
- 25** What activity described below is a good way of conserving energy?
- A** Putting boiling water in a thermos flask.
 - B** Using fire wood to cook porridge.
 - C** Leaving outside lights on at night.
 - D** Sharing bath water in the morning.

- 26** Electromagnets are used to make different objects.
Which one of the following objects uses an electromagnet?
- A** electric globe
 - B** electric stove
 - C** microwave oven
 - D** telephone speaker
- 27** Which of the practices is not good for the environment?
- A** Burning grass on grazing land in winter.
 - B** Using kraal manure to fertilise your garden.
 - C** Using firewood to make cooking fires.
 - D** Closing dongas with big rocks.
- 28** What is the difference between a clinical thermometer and a laboratory thermometer?
- A** The laboratory thermometer is much smaller than the clinical thermometer.
 - B** The laboratory thermometer has a kink which is absent in the clinical thermometer.
 - C** The clinical thermometer has a thinner thread than the laboratory thermometer.
 - D** the clinical thermometer has a red thread while the clinical thermometer has a silver thread.

- 29** When a chameleon sits on a brown tree branch it turns brown. Why is the change in colour important to the chameleon?
- A** It allows the chameleon to lose excess heat.
 - B** It allows the chameleon to find its mate for reproduction.
 - C** The chameleon camouflages in order to catch its prey easily.
 - D** It allows the chameleon to escape from harsh rays of the sun.
- 30** Which substance is a solution?
- A** carbon dioxide
 - B** salt solution
 - C** sugar crystals
 - D** water vapour
- 31** The diagram below shows the female reproductive system. In which part does the baby develop during pregnancy?



32 When the stomach is upset it can be soothed by drinking a mixture of ash and water.

What does the ash do in the stomach?

- A** It reduces the temperature of the stomach.
- B** It makes stomach pains go away.
- C** It neutralises the acid in the stomach.
- D** It digests food in the stomach quickly.

33 Luke wants to obtain salt from a salt solution.

What is the method that he can use?

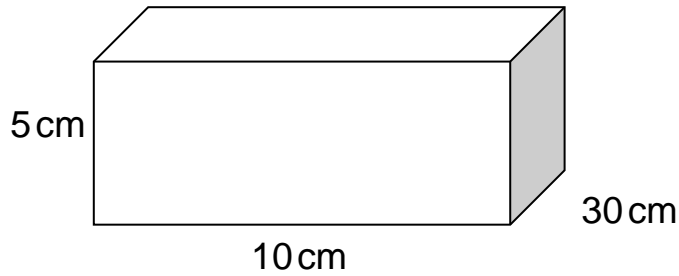
- A** decantation
- B** evaporation
- C** filtration
- D** simple distillation

34 Jane likes eating oranges.

What nutrient does she get from eating oranges?

- A** calcium
- B** iron
- C** vitamin B
- D** vitamin C

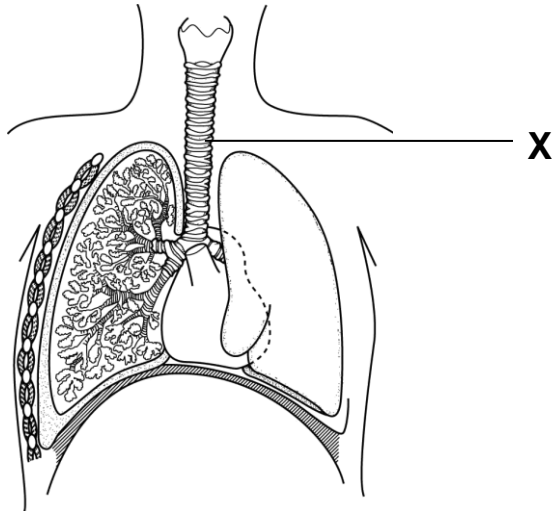
35 The box shown below is filled with sand.



What is the amount of sand that is in the box?

- A 15 cm^3
- B 45 cm^3
- C 300 cm^3
- D $1\,500\text{ cm}^3$

36 The diagram below shows the respiratory system.



What is the part labelled **X**?

- A bronchus
- B trachea
- C alveolus
- D gullet

- 37** A metal ball has a mass of 50 g and a volume of 25 cm³.
What is the density of the ball?
- A** 0.5 g/cm³
 - B** 2 g/cm³
 - C** 75 g/cm³
 - D** 1 250 g/cm³
- 38** What is the gas that is released by leaves during transpiration?
- A** oxygen
 - B** nitrogen
 - C** carbon dioxide
 - D** water vapour
- 39** Green plants have chlorophyll.
What is the importance of chlorophyll in plants?
- A** It makes them look green.
 - B** It keeps the leaves healthy.
 - C** It enables them to trap sunlight.
 - D** It enables them to release waste gases.
- 40** Which of the statements is true about gases in the air?
- A** There is 78% oxygen in air.
 - B** There is more than 1% carbon dioxide.
 - C** Nitrogen puts out burning fires.
 - D** Oxygen supports combustion.

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