



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini Primary Certificate

SCIENCE

513/01

Paper 1 Multiple Choice

October/November 2020

1 hour

Additional Materials: 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 on the Answer Sheet in the spaces provided unless this has been done for you.

There are **forty** 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 in **soft pencil** on the separate Answer Sheet.

Read the instructions on the Answer Sheet very carefully.

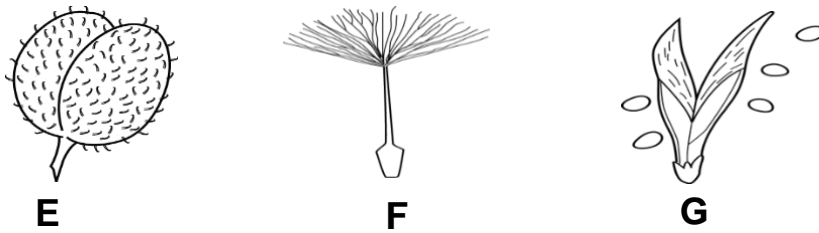
Each correct answer will score one mark. A mark will not be deducted for a wrong answer.

Any rough work should be done on this Question Paper and **not** on the Answer Sheet.

The total of the marks for this paper is 40.

This document consists of **14** printed pages and **2** blank pages.

1 The diagram shows different types of seeds.



Which agents of seed dispersal will spread the seeds **E**, **F** and **G**?

	E	F	G
A	wind	animals	self
B	animals	wind	self
C	wind	self	animals
D	self	wind	animals

2 Which statement is true about the filtration process?

- 1 Filtration is the process of separating an insoluble solid from a liquid.
- 2 The liquid collected during filtration is a distillate.
- 3 A residue is filtered through the filter funnel.
- 4 A condenser is one of the apparatus used during filtration.

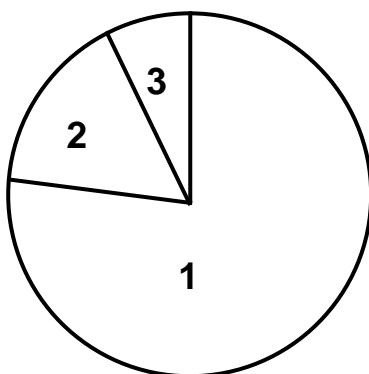
- A** 1
B 2
C 3
D 4

3 What is likely to happen to teenagers if they engage in unprotected sexual intercourse?

- A** They become sexually active.
B They may become infected with HIV.
C They become good women and men.
D They become satisfied with sex early.

- 4 Which function of a skeleton is correct?
- A** The human skeleton has only moveable joints.
- B** The skeleton does not work with muscles.
- C** The skeleton protects the organs of the body.
- D** Skeletons of different animals are the same.

- 5 The pie chart shows the composition of air in the atmosphere.

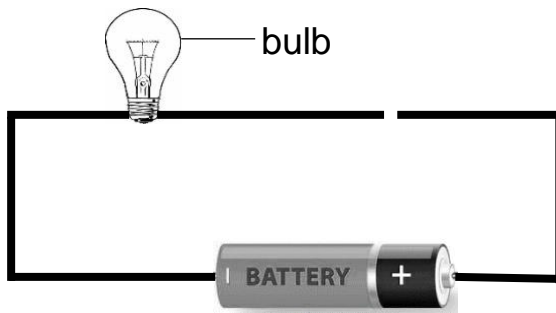


What are the names of the gases labelled 1, 2 and 3 in the pie chart?

	1	2	3
A	nitrogen	all other gases	oxygen
B	nitrogen	oxygen	all other gases
C	oxygen	all other gases	nitrogen
D	oxygen	nitrogen	all other gases

- 6 Which list contains only magnetic objects?
- A** paper, plastic and spoon
- B** nails, paper clips and pins
- C** wool, paper clips and rubber
- D** steel wool, pencil and battery

7 The diagram shows a simple circuit.



Why is the bulb in the circuit not lighting?

- A bulb is burnt
- B circuit is open
- C wires are thick
- D battery is old

Questions 8 and 9 refer to the table below.

The table shows meals served to pupils in a school over four days in a week.

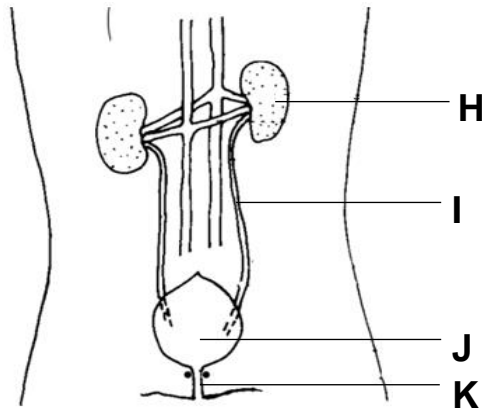
Monday	Tuesday	Wednesday	Thursday
milk	egg	porridge	rice
porridge	beans	beans	fish
water	guava juice	cabbage	beef
apple	cheese	orange	water

8 On which days did the pupils receive meals that are rich in proteins?

- A Monday and Tuesday
- B Monday and Thursday
- C Tuesday and Thursday
- D Wednesday and Tuesday

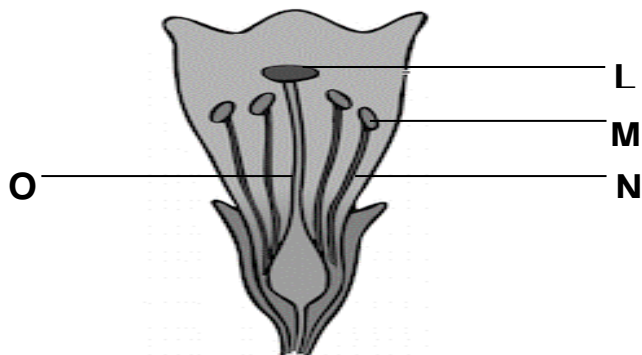
- 9** On which day did the pupils get food that could lead to scurvy if eaten over a long time?
- A** Monday
 - B** Tuesday
 - C** Wednesday
 - D** Thursday
- 10** Which substance is used by a crane to separate magnetic materials from non-magnetic materials in a scrap yard?
- A** bar magnet
 - B** electromagnet
 - C** cylindrical magnet
 - D** iron bar
- 11** Why is it important to chew food before swallowing?
- A** to get the taste of the food
 - B** to break food into smaller particles
 - C** to make food insoluble in the blood
 - D** to make food to enter into the mouth
- 12** Which technology tool is used by blind people to read a book?
- A** tapes
 - B** Braille
 - C** spectacles
 - D** microscope

- 13 The diagram below shows the urinary system.



Which organ stores urine temporarily?

- A H
 B I
 C J
 D K
- 14 The diagram shows a flower.



What are the names of the parts labelled L, M, N and O?

	L	M	N	O
A	stigma	anther	filament	style
B	anther	stigma	style	filament
C	style	anther	filament	stigma
D	filament	style	anther	stigma

15 What is the smallest particle of matter?

- A a solute
- B an atom
- C a compound
- D an element

16 The following are instruments used in a laboratory.

- 1 measuring cylinder
- 2 stop clock
- 3 clinical thermometer
- 4 laboratory thermometer

Which of these instruments are used to measure body temperature and volume of a substance?

	body temperature	volume
A	laboratory thermometer	measuring cylinder
B	stop clock	clinical thermometer
C	clinical thermometer	measuring cylinder
D	measuring cylinder	stop clock

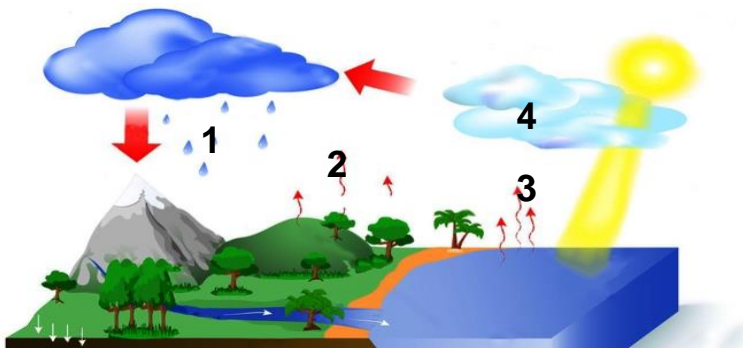
17 Which of the following is sign of a charged object?

- A sound made by a stove when cold water spills on the hot plate
- B sparks flying off a jersey when it is taken off
- C smoke fumes coming out of an exhaust of a car
- D clouds changing colour when rain is about to fall

18 Which communication method uses the internet?

- A SMS
- B television
- C telephone
- D WhatsApp

19 The diagram shows a water cycle.



What are the names of the processes represented by the numbers 1, 2, 3 and 4?

	1	2	3	4
A	condensation	evaporation	precipitation	transpiration
B	evaporation	condensation	transpiration	precipitation
C	precipitation	transpiration	evaporation	condensation
D	transpiration	precipitation	condensation	evaporation

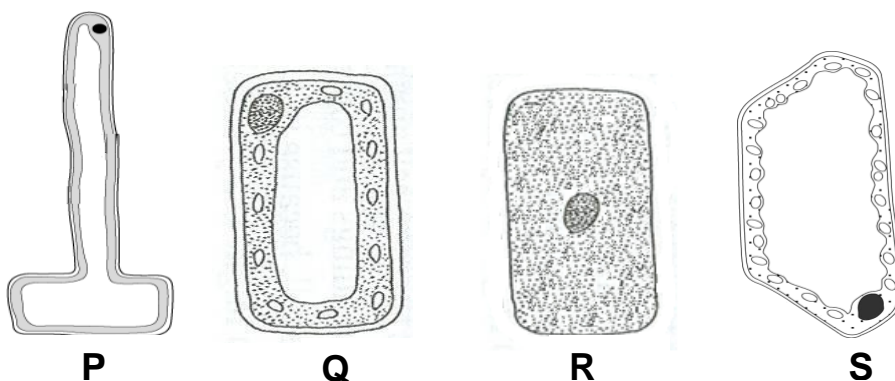
20 Why do human beings tend to float on the moon?

- A There is a low force of gravity on the moon.
- B There is a reduction in mass on the moon.
- C The density becomes low on the moon.
- D The surface is slippery on the moon.

21 Which list contains only clean sources of energy?

- A wind, water, coal
- B solar, water, wind
- C wood, electricity, coal
- D wood, coal, natural gas

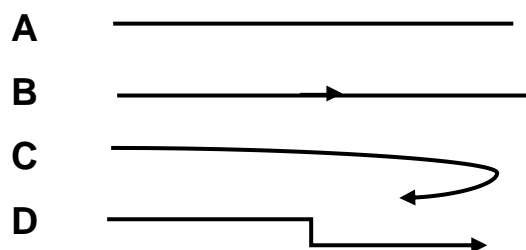
22 The diagrams below show different type of cells.



What is the name of the cell labelled **Q**?

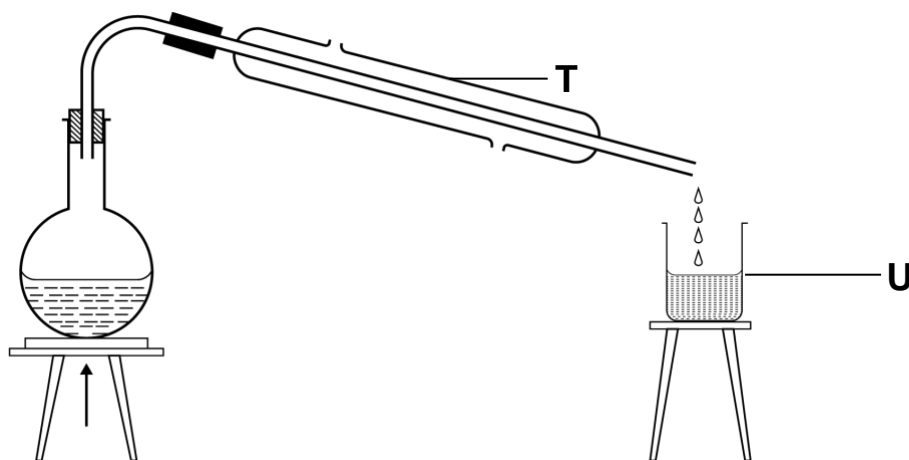
- A animal
- B palisade
- C root hair cell
- D red blood cell

23 Which diagram shows a ray of light?



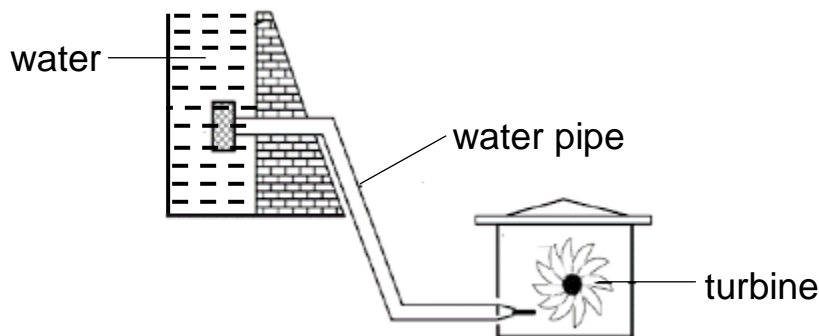
- 24** Which list shows the correct steps that can be used to separate a mixture of sand and sugar?
- A** dissolve, filter, distil
 - B** filter, distil, evaporate
 - C** filter, evaporate, decant
 - D** dissolve, evaporate, distil

Questions **25** and **26** refer to the diagram for the distillation process.



- 25** What is the name of the apparatus labelled **T**?
- A** beaker
 - B** condenser
 - C** flask
 - D** test-tube
- 26** Which substance is collected at **U**?
- A** distillate
 - B** filtrate
 - C** solvent
 - D** solution

- 27 What does the formation of a rainbow after a storm tell us about light?
- A light travels very fast
 - B light travels in straight lines
 - C light is made up of different colours
 - D light is important to plants and animals
- 28 The diagram shows a hydro-electricity power station.

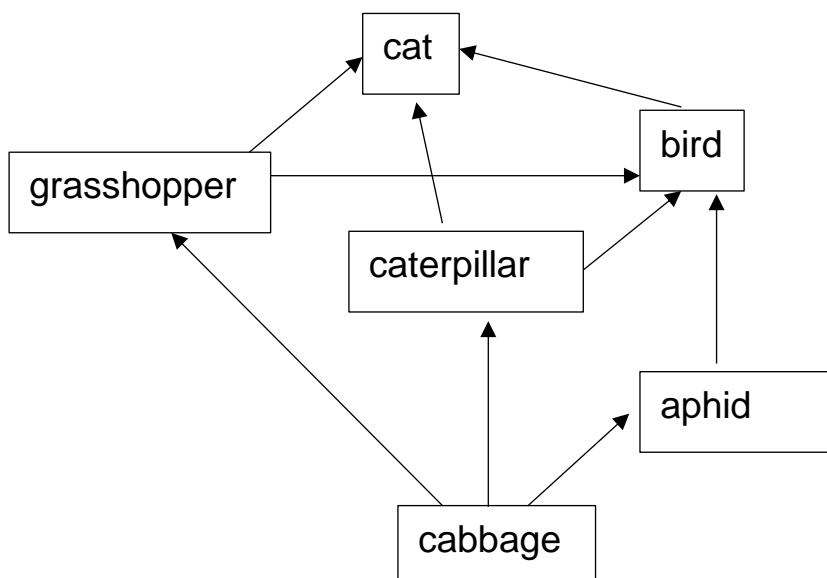


What are the energy conversions that occur when the hydro-electricity power station generates electricity?

- A kinetic → electrical → heat
 - B potential → kinetic → electrical
 - C electrical → kinetic → potential
 - D chemical → potential → electrical
- 29 Which substance is an example of an element?
- A carbon monoxide
 - B carbon dioxide
 - C limewater
 - D copper

- 30** Technology in Agriculture can be used to increase food production. Which two technological practices increase food production?
- A** Use of artificial fertilisers and not planting crops until it rains.
 - B** Use of tractors and genetically modified organisms (GMOs).
 - C** Use of insecticides and increased human labour.
 - D** Use of kraal manure and herbicide sprays.
- 31** Which of the following is a source of current electricity?
- A** bulb
 - B** dam
 - C** torch
 - D** battery
- 32** Why is wood ash useful in treating stomach ache?
- A** It lowers the pH of the stomach.
 - B** It neutralises the acid in the stomach.
 - C** It is removes the poisons in the stomach.
 - D** It lowers the temperature of the stomach.

Questions **33** and **34** refer to the diagram of a food web



- 33** Which organism in the food web is a primary consumer?
- A** cat
 - B** bird
 - C** cabbage
 - D** caterpillar
- 34** Which food chain has been drawn correctly from the food web?
- A** cabbage → aphid → bird
 - B** cat → grasshopper → bird
 - C** bird → caterpillar → cabbage
 - D** cat → grasshopper → cabbage
- 35** Which of the following is the correct statement about temperature?
- A** it is the hotness of a substance
 - B** it is the coldness of a substance
 - C** it is a point where water starts boiling
 - D** it is the measure of how hot or cold a substance is
- 36** Which activities may result to air pollution?
- A** burning trees and planting more
 - B** adding untreated sewage into water
 - C** cutting down a lot of trees in an area
 - D** increasing the number of cars on the road
- 37** Which statement best describes technology?
- A** Use of mathematics to predict weather.
 - B** Knowledge of how to drive a motor vehicle.
 - C** Use of scientific knowledge to make useful products.
 - D** Knowledge of how to use modern communication methods.

- 38** Which activities may result to global warming?
- A** releasing too much oxygen into the air
 - B** releasing too much nitrogen into the air
 - C** adding too much hydrogen into the air
 - D** adding too much carbon dioxide into the air
- 39** Which statement(s) are true about combustion.
- 1** Air is not necessary for combustion.
 - 2** Combustion occurs at low temperatures.
 - 3** Heat and light are given out during combustion.
- A** 1 only
 - B** 2 and 3
 - C** 3 only
 - D** 1 and 3
- 40** Which feature of plant leaves helps to reduce the rate of transpiration?
- A** small and dull leaves
 - B** large and hairy leaves
 - C** small and shiny leaves
 - D** large and shiny leaves

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