



PERFECT EDUCATION SERVICES - KAMPALA  
**PRIMARY SEVEN PRE PLE SET TWO EXAMINATION**  
**2022**  
**INTEGRATED SCIENCE**

**Time Allowed: 2 hours 15 minutes**

Index No.	EMIS No.	Personal No.

Candidate's Name .....

Candidate's Signature.....

EMIS No. ....

District Name .....

Read the following instructions carefully:

1. This paper has two sections A and B. section A has 40 questions and section B has 15 questions.
2. Answer all questions. All answers to both sections A and B must be written in the spaces provided.
3. All answers must be written using a blue or black ball point pen or ink. Any work written in pencil other than graphs and diagrams will not be marked.
4. Unnecessary changes in your work may lead to loss of marks.
5. Any handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in the table indicated: "For Examiners' Use Only." and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
<b>TOTAL</b>		

Turn Over

## SECTION A: 40 MARKS

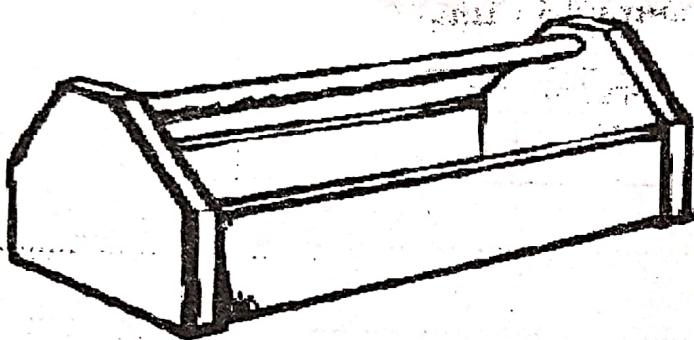
1. Which fluid reduces friction at a joint?

.....  
2. How can a person keep the mouth free from harmful bacteria?

.....  
3. Name any **one** external human body organ for feeling.

.....  
4. Why is the handle of flat irons usually made of wood?

**The diagram below shows a tool found in a deep litter house. Study and use it to answer question 5 and 6**



5. Name the equipment found in a poultry house shown.

.....  
6. State the use of the shown equipment in poultry keeping.

.....  
7. State any one importance of trees to crops in agro-forestry.

.....  
8. Mention one condition needed by seeds to germinate.

.....  
9. Of what importance is a lateral line to a fish?

.....  
10. Give the importance of a stretcher when giving first aid.

.....  
11. Name the eye defect where the person is unable to see distant object clearly.

.....  
12. Give **one** way of reducing the use of wood fuel in a home.

.....  
13. Which stage in the life cycle of a butterfly is dangerous to crop farmers?

**14.** Why is carbon dioxide used in fire-extinguishers?

**15.** How does a maize plant differ from the ferns and mosses plants in terms of reproduction?

**16.** Why is it not necessary to smoke a VIP latrine?

**17.** State the function of the ossicles in the human ear.

**18.** To which group of vertebrates does an eagle belong?

**19.** How is a stem tuber useful to an Irish potato plant?

The diagram below shows a tooth. Study and use it to answer questions 20 and 21



**20.** Name the type of tooth shown above.

**21.** How is the shown tooth adapted to its functions?

**22.** Give one way of improving the efficiency of a wedge.

**23.** Give any one way drugs of dependence are abused.

**24.** State one way animals depend on non living components of the environment.

**25.** How are sperm cells similar to pollen grains?

**26.** Give one way people get non communicable diseases.

**27.** Name any one energy resource from animals.

**28.** How are kidneys and the skin similar in function?

**29.** State any one way of preventing contamination of ORS during preparation.

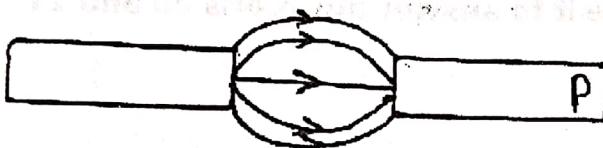
**30.** Give any one requirement of a pregnant mother.

**31.** Which method of heat transfer is occurs in liquids?

**32.** How is cross breeding important in cattle keeping?

**33.** In which group of levers does the effort move a shorter distance than the load?

**The diagram below shows a property of magnets. Study and use it to answer questions 34 and 35**



**34.** Identify the magnetic pole marked P.

**35.** State the property of magnets shown above.

**36.** Give any one function of the rings of cartilage found in the trachea.

**37.** How can a mixture of paraffin and water be separated?

**38.** Give one use of a rack in a home.

**39.** Why are weeds controlled in the crops garden?

**40.** How does castration help to control the breeding of poor quality goats?

#### **SECTION B: 60 MARKS**

Questions 41 to 55 carry four marks each.

**41.a)** Mention any one agent of pollination.

**b)** State any one way pollination is useful to flowering plants.

c) How are the following crops adapted to cross pollination?

(i) Paw paw plants: ....

(ii) Maize plants: ....

42. The table shows facts about circulation. Complete it correctly.

Blood vessel	Type of blood carried	Body part from which it gets blood
Venacava	.....	All body parts
.....	Oxygenated blood	Lungs
Aorta	.....	Heart
Pulmonary artery	Deoxygenated blood	.....

43.a) Which part of a thermos flask controls heat loss or gain by?

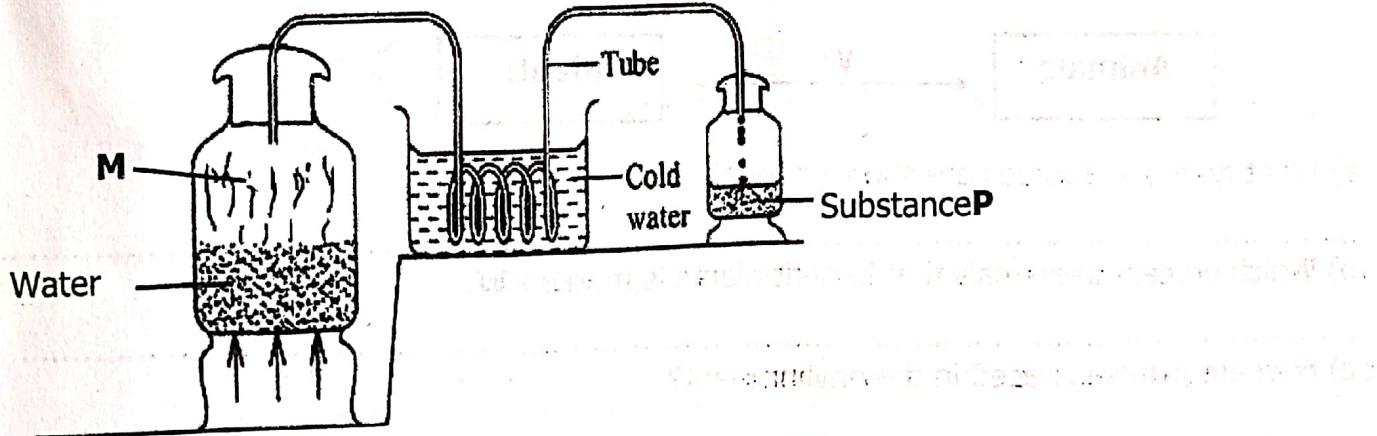
(i) Conduction: ....

(ii) Radiation: ....

b) How does the use of a thermo flask help to conserve trees in the environment?

c) What happens to tea in the flask if the vacuum seal is broken?

The diagram below shows a method of making dirty water pure. Study and use it to answer question 44.



**44.a)** Name the method of obtaining pure water shown.

**b)** Which physical process takes place at M?

**c)** Why is the delivery tube placed in cold water?

**d)** State any one importance of substance P in hospitals

**45.a)** Apart from pulleys, write two other types of simple machines

(i).....

(ii).....

**b)** State any one way pulleys simplify work.

**c)** Give any one application of pulley in our daily work.

**46.a)** State any two ways essential drugs are useful to the body.

(i).....

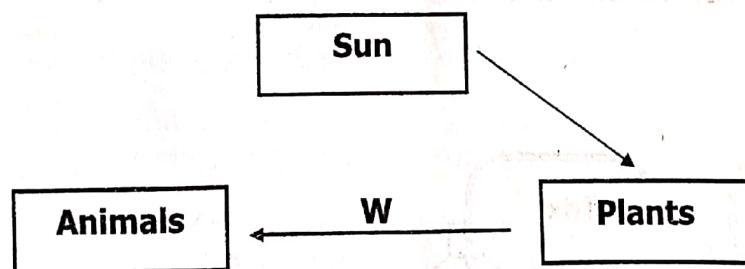
(ii).....

Give any two ways essential drugs are misused by people.

(i).....

(ii).....

**47.** The chart below show different resources in the environment. Study and use it to answer questions about it.



**a)** What type of resources are shown above?

**b)** Which process in animals that benefit plants is marked W.

**c)** How are plants replaced in the environment?

**d)** What is the importance of the sun to plants?

**48.a) Mention the **two** vaccines administered to babies at birth.**

- (i).....  
(ii).....  
b) How can a baby acquire natural immunity?  
.....  
c) State **one** way vaccines boost the body's immunity.  
.....

**49.a) Apart from use of fertilizers, give **two** ways of improving soil fertility...**

- (i).....  
(ii).....  
b) State any **two** methods of applying fertilizers in the garden.  
(i).....  
(ii).....

**50. The table below shows different animals. Study and use it to answer questions that follow.**

P	Q	R	S
Ostrich	Newt	Bee	Gorilla
Dove	Frog	Scorpion	Man
Parrot	Toad	Crab	Bush baby

a) How are organisms in group **R** different from the rest of the organisms in the table?

b) Give **one** way organisms in group **P** use claws for protection..

c) Which of the above groups undergo external fertilization?

d) How are organisms in **S** different from those in **P** in terms of reproduction?

**51.a) Name the gas in the atmosphere used during;**

- (i) photosynthesis: .....  
(ii) rusting: .....  
b) Give any **one** difference between rusting and photosynthesis.

c) How is photosynthesis useful to animals?

**52.a) Give any **two** reasons why bees may swarm.**

- (i).....

(ii).....  
b) State **one** role of worker bees in the hive.

c) How does bee keeping help to improve human health?

53.a) Mention any **one** electric appliance that changes electricity to;

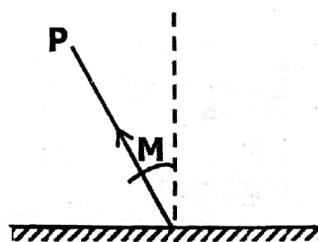
(i) heat energy: .....

(ii) Sound energy: .....

b) Which component of a simple electric circuit produces electricity?

c) How can electricians guard against electric shocks?

54. The diagram below shows a property of light. Use it to answer questions about it.



a) Name the ray labelled **P**.

b) Which property of light is shown above?

c) Name the angle marked **M**.

d) Complete the diagram by drawing the missing ray.

55.a) Give any **two** ways a mother hen cares for her chicks.

(i).....

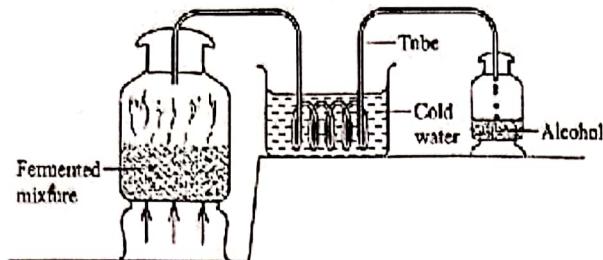
(ii).....

b) State any **two** advantages of artificial brooding.

(i).....

(ii).....

- 1.** synovial fluids
  - 2.** By regular brushing teeth// treat mouth infections// promote oral hygiene// Regular washing of the mouth.
  - 3.** nose// skin// eyes// ears
  - 4.** To protect the users hand against burns
  - 5.** feeder// feeding trough
  - 6.** For feeding poultry// poultry feeds are put to feed poultry.
  - 7.** Trees; provide shade to crops// give extra support to climbing crops// leaves drop to form humus// protect crops against soil erosion.
  - 8.** water// oxygen// moisture// warmth
  - 9.** A lateral line helps fish to detect sound movements in water.
  - 10.** For carrying casualties who can't walk.
  - 11.** short sightedness// myopia
  - 12.** Using; alternative energy sources// electricity to cook// biogas// it sparingly// extinguish wood fuel after use.
  - 13.** larva stage
  - 14.** carbon dioxide doesn't support burning.
  - 15.** A maize plant reproduces by means of seeds while ferns and mosses plant reproduce by spores.
  - 16.** A VIP latrine has a vent pipe that lets out bad smell.
  - 17.** Ossicles amplify sound vibrations.
  - 18.** birds
  - 19.** A stem tuber is used for propagation.
  - 20.** canine tooth
  - 21.** It has a sharp pointed edge.
  - 22.** By sharpening wedges.
  - 23.** By;; sniffing// drinking// smoking// chewing leaves// injection through the veins
  - 24.** For habitats// food// respiration// winnowing// growing crops// irrigation// drinking// flying kites// drying harvested crops// drying clothes
  - 25.** Both are; male gametes// male reproductive cells.
  - 26.** By poor feeding// smoking// alcoholism// inheritance from parents.
  - 27.** animal dung// urine// food// cow dung
  - 28.** Balance the amount of water and salt in the body.
  - 29.** By; washing hands// use of clean containers
  - 30.** a balanced diet// maternity clothes// physical exercises// enough rest// antenatal care
  - 31.** convection
  - 32.** Cross breeding improves the quality of cattle.
  - 33.** third class levers// 3rd class levers
  - 34.** North Pole
  - 35.** Unlike poles of magnets attract each other.
  - 36.** Rings of cartilage keep the trachea open all the time.
  - 37.** By use a separating funnel.
  - 38.** For drying utensils after washing.
  - 39.** To improve on crop yields// reduce competition for nutrients// control pests// control crop diseases
  - 40.** Castration prevents random mating.
  - 41.a)** insects// birds// water (accept bees, butterflies, moths)
  - b) Pollination; enables fertilisation to occur// helps in formation of fruits and seeds
  - c) (i) Pawpaw plants have the male and female flowers on separate (different) paw paw plants  
(ii) The stamen matures earlier than the pistil.
  - 42.(a)** deoxygenated blood  
(b) pulmonary vein  
(c) oxygenated blood  
(d) heart
  - 43.a)** (i) cork. (ii) double silvered walls// silvered walls// silvered glass
  - b) Conserves heat in food reducing the need of using wood fuel to reheat (warm) the food.
  - c) It becomes cold// loses heat
- The diagram below shows a method of making dirty water pure. Study and use it to answer question 44.



**44.a)** distillation

- b) Evaporation
- c) For condensation of the water vapour.
- d) For mixing drugs// giving drips to dehydrated patients.

**45.a)** levers// inclined planes// wedges// screws// wheels and axle

- b) By; changing the direction of force// reducing effort needed by half// increasing speed of doing work
- c) For; hoisting flags// raising curtains// drawing water from wells// towing vehicles// used in lifts// used in cranes// painting using scaffolds// raising building materials at construction sites

**46.a)** Essential drugs; reduce pain// reduce signs and symptoms// treats diseases// cure diseases

By taking overdose// taking under dose// self medication// throwing drugs// taking drugs when not sick

**47.(a)**renewable resources

- b) Photosynthesis
- c) Through reproduction
- d) Source of sunlight for photosynthesis// heat from the sun provides warmth for seed germination

**48.a)** polio vaccine// BCG vaccine

- b) By eating a balanced diet// breastfeeding// recovery from sickness
- c) Vaccines stimulate production of antibodies.

**49.a)** By; mulching// crop rotation// agro forestry// bush fallowing// planting trees

b) By spraying// top dressing// random application (broadcasting)// row application

**50.(a)** Organisms in group R are invertebrates while the rest are vertebrates// have lack back bones while the rest backbones// Have exp skeleton while the rest have endo skeleton.

b) By scratching the enemies

c) group Q// Q

d) Organisms in S give birth to live young ones while those in P lay eggs.

**51.a)** (i) carbon dioxide. (ii) oxygen

b) Rusting requires oxygen while photosynthesis requires carbon dioxide to take place// Rusting occurs in iron metals while photosynthesis occurs in plants.

c) Provides food// provides oxygen to animals

**52.a)** due to enemy attacks// direct sunlight into the hive// overcrowding// leaking hive// food shortages// birth of the queen bee// death of the queen bee

b) Worker bees; repair the hive// defends the hive// feeds the queen/ brood// collects nectar// scout for new hive// makes honey// fans the hive

c) It provides honey that contains carbohydrates.

**53.a)** (i) oven// electric kettle// microwave// flat irons// electric cookers// hot plate// water heaters

(ii) radios// television set// phone// electric bells

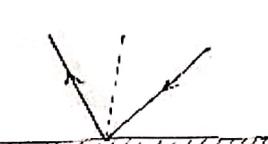
b) Dry cells// battery

c) By wearing gloves// head helmets

**54.(a)**Reflected ray

b) Light can be reflected// Reflection of light

c) angle of reflection



d)

**55.a)** By; feeding// protecting them// providing warmth

b) It's suitable for commercial purposes// many chicks are taken care of// chicks are protected from harsh weather// chicks are protected from predators