



THE HIGHWAY EXAMINATIONS

PRIMARY SEVEN QUALITY ASSESSMENT

2025

INTEGRATED SCIENCE

Time allowed: 2 hours 15 minutes

Random No.						Personal No.		

Candidate's name: OFFICIAL MARKING GUIDE

Candidate's signature:

District ID No:

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Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections: **A** and **B**.
Section **A** has **40** questions and section **B** has **15** questions. The paper has **15 printed pages** altogether.
3. Answer **all** questions. **All** the answers to both sections **A** and **B** must be shown in the spaces provided.
4. **All** answers must be written using a **blue** or **black** ball point pen or ink. Any work written in pencil other than drawing will not be marked.
5. Unnecessary **changes** in your work and 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 in the boxes inside the question paper.

FOR EXAMINER'S 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		
TOTAL		

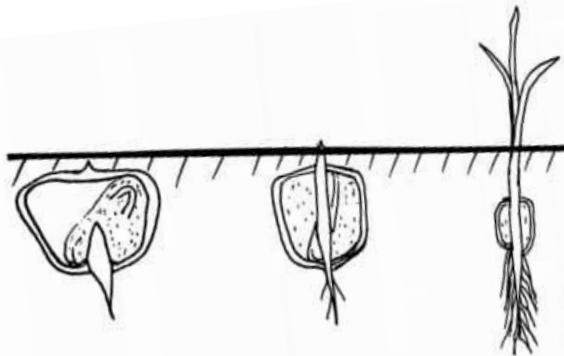
SECTION A: 40 MARKS

*Answer **all** questions in this section.*

*Questions **1 to 40** carry two marks each.*

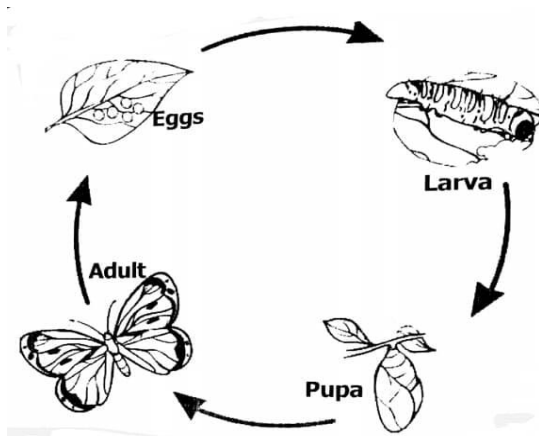
- Name the component of soil formed when dry grass rots.
✓ **Humus** Reject: **Rock particles**
- Apart from mechanical method, state any **one** other method of storing sound.
✓ **Magnetic**
✓ **Electromagnetic method**
Reject: **Recording and Notation / Writing**
- Mention the source of energy used by plants in the process of photosynthesis.
✓ **Sun** Reject: **sunshine**
- Name the type of teeth which is missing in the milk set of teeth.
✓ **Premolars**
✓ Reject: **molars**
- State any **one** way of keeping the circulatory system in a good working condition.
✓ **Feeding on a balanced diet.**
✓ **Doing regular physical exercise.**
✓ **Going for regular medical checkups.**
✓ **Avoid smoking.**
✓ **Limit eating only fatty food.**

The illustration below shows a germinating maize plant. Study and use it to answer question **6** and **7**.



6. Name the type of germination shown above.
✓ **Hypogeal germination.**
7. Name the group of flowering plant to which the above belong.
✓ **Monocotyledonous plants / Monocots**

8. State how canine teeth are able to tear food.
 ✓ **They are sharp pointed.**
 Reject: **Any answer with feature and function**
9. Name any **one** example of root tubers.
 ✓ **White yams // sweet potatoes**
 ✓ **cassava // carrots // turnips**
10. When a pen and a paper is released from the top of the building, the pen reached the ground faster than a paper. Give a reason why a pen reached the ground faster than a paper.
 ✓ **A pen has less air resistance than a paper.**
 Reject: **Due to force of gravity.**
11. Give a reason why a boat floats on water.
 ✓ **A boat is less dense than water.**
 Reject
 ✓ **A boat displaces amount of water equal to its weight.**
12. Identify any **one** type of mechanical energy possessed by a passenger seated in a moving vehicle.
 ✓ **Kinetic energy // Potential energy**
 The illustration below shows a life cycle; study and use it to answer questions **13** and **14**.



13. Name the type of lifecycle shown above.
 ✓ **Complete lifecycle // complete**
14. Give a reason to support your answer above.
 ✓ **The larva stage is completely different from the adult stage in structure and function.**
 Reject: **It undergoes four stages.**

15. State what causes marasmus.
- ✓ **Lack of all food values in the diet.**
 - ✓ **Lack of all food nutrient in the diet.**
- Reject: **lack of carbohydrates.**
- Note: **Marasmus is starvation remember when a person starve you do not lack only one class of food but you will lack all.**
16. In which way can a person care for his / her ears.
- ✓ **Cleaning using ear cotton swabs.**
 - ✓ **Listening to music at a low volume.**
 - ✓ **Going for regular medical checkups.**
- Reject: **Cleaning using ear buds**
17. State any **one** way in which earthworms are important to crop farmers.
- ✓ **Improves on soil fertility.**
 - ✓ **Improves water drainage in the soil.**
 - ✓ **Helps in the formation of humus.**
- Reject: **They die to form humus**
18. State how hookworms enter the body.
- ✓ **By penetrating the bare skin.**
- Reject: **By walking bare footed.**
19. Mention any **one** common accident at home.
- ✓ **Burns / scalds / near drowning / drowning / cuts / electric shock / snake bites.**
- Reject:
- ✓ **Falls and knocks because they are causes of common accidents.**
 - ✓ **Secondly every accident must have a first aid.**
20. Give a reason why farmers carryout docking.
- ✓ **To prevent flystrikes**
 - ✓ **To keep the sheep clean.**
- Reject: **To ease mating/ To enable the sheep grow fat / To expose the vulva to the ram**
21. Mention any **one** type of drugs.
- ✓ **Essential drugs**
 - ✓ **Narcotic drugs**
- Reject: **Modern // Traditional drugs**

31. Write down any **one** by-product of respiration.
- ✓ **Carbon dioxide**
 - ✓ **Water vapour**
32. Give a reason why it is advisable to sneeze in a handkerchief when in public.
- ✓ **To control airborne diseases**
 - ✓ **To prevent droplet infection**
 - ✓ **To prevent spreading mucus to nearby people.**
33. State any **one** way in which animals can be used as energy resource.
- ✓ **Animals provide energy for transport.**
 - ✓ **Animals provide energy for ploughing.**
 - ✓ **Animals provide energy for pulling carts.**
 - ✓ **Animals provide energy for turning machines.**
34. State **one** way in which the human skeleton is useful to the circulatory system.
- ✓ **It protects the heart.**
 - ✓ **It helps in the production of blood cells.**

The diagram below shows an item used to manage weather. Study and use it to answer questions **35** and **36**.



35. Name the item shown in the diagram above.
- ✓ **Umbrella.**
36. State the element of weather that requires people to use the above item.
- ✓ **Rainfall // Sunshine**

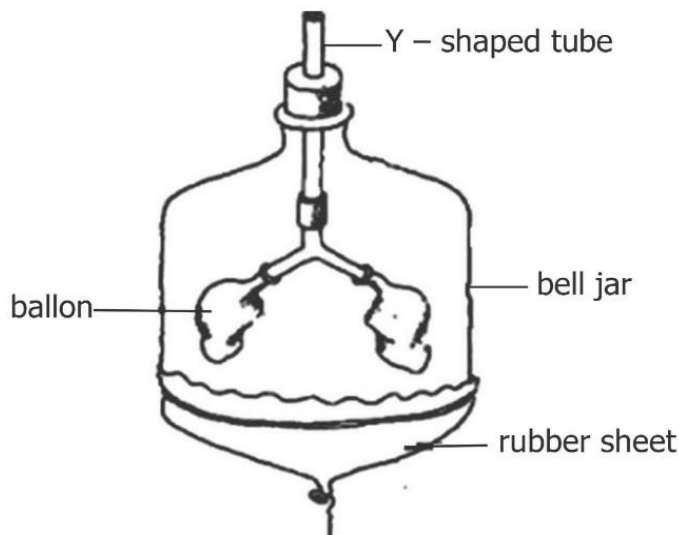
37. Give a reason why breast milk is considered to be the best food for babies.
- ✓ **Breast milk contains all food values needed by the baby.**
Reject: **Breast milk contains almost all food values**
Note: **Breast milk contains carbohydrates, proteins, vitamins, lipids and mineral salts**
38. Name the element of primary health care which promotes quick recovery of the casualty.
- ✓ **First aid**
Reject: **Accidents and first aid**
Note: **First aid involves giving initial help to accident victim before getting further treatment.**
39. State the importance of gills to a mushroom.
- ✓ **Produces spores // It produces spores.**
 - ✓ **Produces and disperse spores.**
40. Give any one way in which a blacksmith use heat.
- ✓ **For melting metals**
 - ✓ **For shaping metals**
 - ✓ **For softening metals.**
 - ✓ **For bending metals.**
 - ✓ **For joining metals.**
 - ✓ **For moulding metals.**

SECTION B : 60 MARKS

Answer **all** questions in this section.

Questions 41 to 55 carry four marks each

41. The diagram below shows a model of the human respiratory system. Study and use it to answer questions that follow.



- (a) What does the straw represent in the above?
✓ **Trachea / wind pipe / Bronchi**
- (b) State what happens to the balloon when breathing in.
✓ **The balloon expands / The balloon will expand**
✓ **The balloon increase in size / volume.**
- (c) Explain how you can demonstrate breathing in in the above experiment. (2 marks)
✓ **Pull the rubber sheet downwards to allow air into the balloon.**
42. (a) Mention any **two** activities at home that requires the use of filtration method.
✓ **When separating water from soil.**
✓ **When separating juice from fruits.**
✓ **When separating tea from tea leaves.**
✓ **When preparing local salt.**
- (b) State any **two** ways in which filtration method is important at home.
✓ **It helps in separating tea leaves from tea.**
✓ **It helps in separating fruit juice from seeds.**
✓ **It helps in preparing local salt from plant ash.**
✓ **It helps in separating water from small rocks.**

43. (a) Name any **one** example of natural magnet.
- ✓ **Lodestone**
 - ✓ **magnetite**
 - ✓ **Earth**
- (b) State any **one** way of preventing magnets from losing magnetism.
- ✓ **Painting magnets to prevent rusting.**
 - ✓ **Keeping magnets with iron keepers.**
 - ✓ **Keeping magnets away from heat.**
 - ✓ **Keeping magnets with unlike poles together.**
 - ✓ **Keeping magnets facing North South direction.**
- (c) Apart from electric bell, mention any **two** other devices that use electromagnets.
- ✓ **Electric alarms**
 - ✓ **sound amplifiers**
 - ✓ **radio speakers**
 - ✓ **electric motors**
 - ✓ **electric sirens**
 - ✓ **Generators**
44. (a) Mention any **one** vice in a deep litre house.
- ✓ **Egg eating**
 - ✓ **Feather pecking**
 - ✓ **cannibalism**
 - ✓ **egg hiding**
- Mnemonic: **FECE**
Reject: **Toe pecking / vent pecking / skin pecking**
- (b) Give any **one** cause of poultry vice in a deep litres house.
- ✓ **Overcrowding of birds.**
 - ✓ **Poor ventilation in a poultry house.**
 - ✓ **Boredom among birds.**
 - ✓ **Shortage of feeds.**
 - ✓ **Lack of proteins in the diet.**
- (c) State any **two** ways of controlling poultry vices.
- ✓ **Hanging green vegetables in the coop.**
 - ✓ **Regular feeding of birds.**
 - ✓ **Providing enough space for birds.**
 - ✓ **Proper stocking.**

45. (a) Name the group of non – flowering plants where fern belong.
✓ **Spore bearing plants.**
Reject: **Coniferous plants**
- (b) State one similarity between pine and cedar in the way they reproduce.
✓ **Both reproduce by means of seeds.**
- (c) Apart from pine and cedar, mention any **two** other plants that reproduce by means of seeds.
✓ **Fir / cypress**
✓ **podo / ginkgo / cycad**
46. You are provided with the following materials to carry out an experiment to show that soil contains water.
Dry saucepan, lump of soil and plate. Describe the steps you would follow.
- (i) **Put the lump of soil into the dry saucepan.**
 - (ii) **Cover the dry saucepan using a plate.**
 - (iii) **Heat the lump of soil in the dry saucepan for some time.**
 - (iv) **Remove the plate and check the water droplets.**
47. (a) Mention any **one** cattle disease caused by virus.
✓ **Rinder pest**
✓ **Foot and mouth disease**
- (b) State any **two** ways of controlling viral diseases in cattle.
✓ **Through regular vaccination.**
✓ **Through application of quarantine.**
✓ **Through isolation of infected animals.**
- (c) State how isolation of infected animals prevents viral diseases in cattle.
✓ **It prevents close contact of infected animals with healthy ones.**
48. (a) State any **two** dangers of teenage pregnancy to girls.
✓ **It leads to school dropouts.**
✓ **It causes birth complications.**
✓ **It may lead to death due to attempted abortion.**
✓ **It leads to forced marriage.**
✓ **It leads to parental reject.**
✓ **It leads to obstructed labour.**

(b) Give any **two** ways adolescent girls can avoid teenage pregnancy.

- ✓ **Abstaining from pre-marital sex.**
- ✓ **Avoid bad peer groups.**
- ✓ **Avoid gifts from strangers.**
- ✓ **Staying at school.**
- ✓ **Educating adolescents about body growth and body changes.**
- ✓ **Reporting cases of rape to concerned people.**

49. The information below is designed by young farmer's club to start a goat rearing project. Study and use it to answer questions that follow.

Activity	Item	Number	Estimated date
Construction	Shade	2	10/06/2025 up-to-date
Purchasing	Nannies	7	18/07/2025
Vaccination	Nannies	7	19/07/2025
Artificial insemination	Animals on heat	Animals on heat	18/07/2025 up to date

(a) Give the collective name for that above information.

- ✓ **Work plan**

Reject:

- ✓ **Record keeping**
- ✓ **Breeding record**
- ✓ **Health record**

(b) Give a reason why the club has no interest on Billy goats.

- ✓ **They are interested in artificial insemination.**

(c) State any **one** way in which artificial insemination is important in the above project.

- ✓ **Promotes cross breeding.**
- ✓ **Prevent venereal diseases**
- ✓ **Hereditary diseases.**
- ✓ **Control inbreeding.**

(d) In which way is the above information important when starting a poultry keeping business?

- ✓ **Helps in time management.**
- ✓ **Helps in effective planning.**
- ✓ **Helps in budgeting.**
- ✓ **Helps in allocating resources.**

50. (a) Name the germ that causes malaria.

- ✓ **Protozoa.**

Reject: **Plasmodia / plasmodium**

(b) In which way does each of the following help to prevent malaria?

(i) Draining stagnant water:

- ✓ **It destroys the breeding places for mosquitoes.**

(ii) Sleeping under treated mosquito net:

- ✓ **It helps to prevent bites from female anopheles mosquitoes.**

(c) Give a reason why male anopheles mosquitoes do not transmit malaria to people.

- ✓ **They do not feed on human blood.**

51. (a) State what is meant by the term weeds.

- ✓ **Weeds are unwanted plants in the garden.**

Reject:

- ✓ **weeds are plants that grow in a place where they are not needed.**

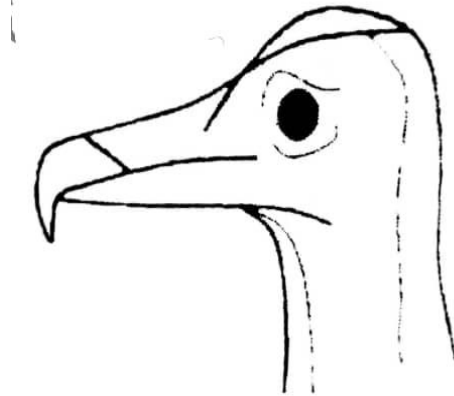
(b) Name the crop growing practice which reduces the weight of the plant.

- ✓ **Pruning.**

(c) Apart from panga and secateurs, mention **two** other garden tools used for pruning crops in the garden.

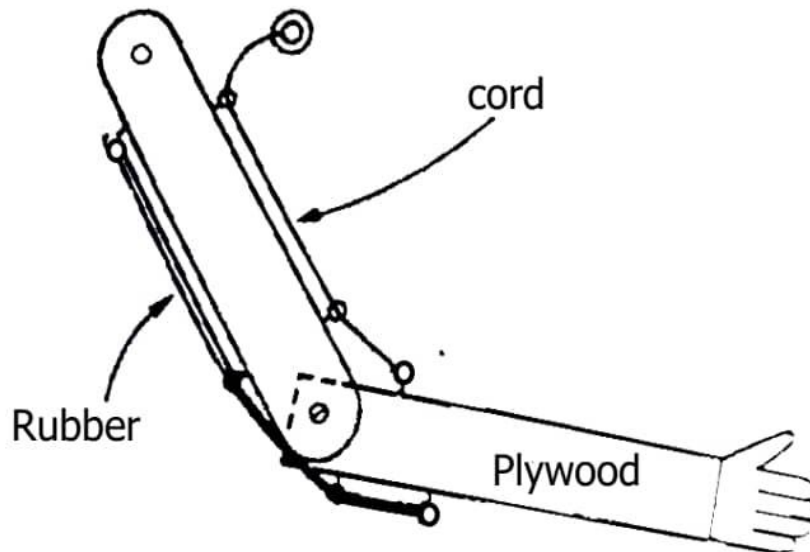
- ✓ **Billhook**
- ✓ **Pruning saw**

52. The diagram below shows a beak of the bird study and use it to answer the questions that follow.



- (a) Name the group of birds which have the beak shown above.
✓ **Scavenger birds.**
- (b) Give any **two** examples of birds which have the beak shown above.
✓ **Vulture**
✓ **Crow**
✓ **Marabou stork**
- (c) State how the birds with such a beak help to clean the environment.
✓ **By feeding on leftover flesh / abandoned flesh.**
53. (a) Name any one method of harvesting honey.
✓ **Modern method**
✓ **Traditional method.**
Reject:
✓ **Floating the wax method**
✓ **Pressing honey method**
✓ **Centrifuging/spinning method**
- (b) State the importance of the following equipment when harvesting honey.
(i) smoker:
✓ **It is used to produce smoke in order to scare and paralyze bees.**
✓ **It is used to produce smoke which scare bees.**
(ii) knife:
✓ **It is used for cutting combs with honey from the hive.**
- (c) Mention any one reason why harvesting of honey should not be done using fire.
✓ **Fire kills bees reducing their population.**
✓ **Smoke from fire contaminates honey.**
✓ **It reduces honey harvesting by killing worker bees.**

54. The diagram below shows a model of the human arm. Study and use it to answer the questions that follow.



- (a) Identify the body muscle represented by:
- (i) The cord:
✓ **Biceps**
 - (ii) The rubber:
✓ **Triceps**
- (b) Name the type of human body muscles are represented in the model above.
✓ **Voluntary muscles.**
- (c) State what happens to the cord when the fore plywood is raised.
✓ **The cord will contract / The cord contracts**
55. (a) State the units for measuring rainfall.
✓ **Millimetres (MM)**
- (b) Give a reason why rainfall is measured in the above units.
✓ **To find how deep rain water has entered the soil.**
- (c) Mention any two components of a rain gauge.
✓ **Funnel**
✓ **measuring cylinder**
✓ **bottle**

END