

Plus One | Serious Revision

Agriculture, Science and Technology

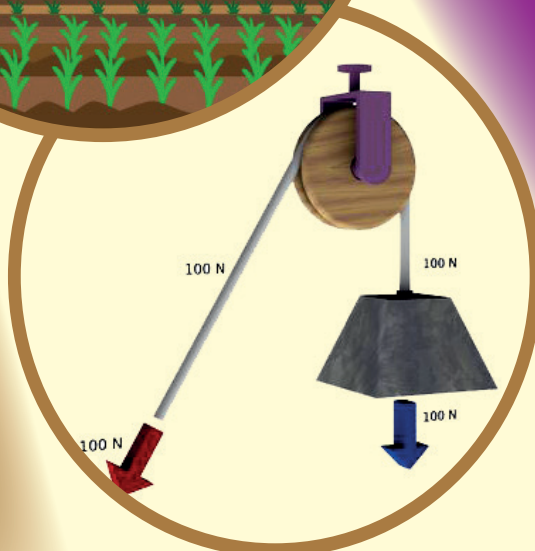


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Grade

7

Revision
Guide



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New Curriculum
With
Answers

Plus One | Serious Revision

Agriculture, Science and Technology

Grade 7 Revision Guide

(with answers)

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Anchors of the schools curricula

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1. AGRICULTURE SECTION

BACKGROUND NOTES FOR AGRICULTURE

Zimbabwe's economy is agro-based. This means that the country relies heavily on agriculture for its economy and general survival. Industries rely on agriculture for raw materials. The population is increasing rapidly which means more food and clothes are needed for families and communities. As a result, the government through the Ministry of Primary and Secondary Education introduced agriculture as a standalone subject at grade 4 level in 2014 and the subject had its first national examination in 2017. These were the old curriculum times and the last examination for that curriculum was in 2020.

In the competency-based curriculum, agriculture has been merged with Science and Technology as well as Information and Communication Technology (ICT) for purposes of examinations by the national examinations body, ZIMSEC. The combination of the three learning areas forms a subject called Agriculture, Science and Technology. Of the three learning areas, Agriculture constitutes the biggest weight of 50 percent.

The place of agriculture in Agriculture, Science and Technology in the ZIMSEC grade 7 examination 2021 going forward

Agriculture, Science and Technology shall have 2 papers namely **703/1** and **703/2**.

Paper 1

Paper 703/1 has a duration of 1 hour 45 minutes. The first 20 questions shall be from the agriculture learning area while the remainder of questions will be from Science and Technology and ICT. The questions for agriculture will be from the 8 topics and from the over 220 syllabus objectives.

Paper 2

Paper 703/2 has a duration of 1 hour 30 minutes and has sections A - D. In section A, questions 1 – 3 shall be from the agriculture learning area. The three questions plus 2 more from the Science and Technology and ICT learning areas are compulsory meaning that candidates are expected to answer **ALL** of them. Section B shall have questions from the agriculture learning area. Candidates are expected to answer **two** questions from a total of three. Candidates are advised to answer the questions they believe to be the **easiest** for them. **EACH** question in paper 2, for all sections A – D carries **5 marks**. The **five marks** for each question are crucial!

Exam writing tips

1. Exams come after **thorough** preparation. Read a variety of sources to cover all the eight topics. Today, learners should also take advantage of the internet as a source of current information. However, not everything on the internet is accurate so work closely with your teacher for guidance and direction. Your teacher is the best person to advise on reliable sources of information.
2. Balance the time you spend on the various learning areas because at the end of the day a candidate is considered to have passed **if and only if** he/she has passed in **all** the six subjects offered at grade seven.
3. In answering paper 1 questions, read all the given answers and **do not** rush through. If it means reading the question more than once for understanding, please do so.
4. Look at the key words in the question and address the demands of the question.

TOPIC 1: INTRODUCTION TO AGRICULTURE

Objectives

In this topic, learners should be able to:

- define the term agriculture.
- explain the importance of agriculture to the family.
- state the importance of agriculture to themselves.
- explain the importance of agriculture to the community and the nation.
- name the branches of agriculture.
- describe the activities involved in each branch.
- identify career opportunities in agriculture.
- describe what is involved in each career.
- describe the different types of agriculture.
- explain the farming systems.
- explain the importance of irrigation farming in Zimbabwe.
- discuss the importance of land reform to Zimbabwe.

Importance of Agriculture

- Agriculture is the **science** of growing plants, rearing of animals, processing and marketing of agricultural products. Concepts in agriculture should be treated scientifically.
- Agriculture is important to every individual, the family, the community and the nation at large. It is important for providing food (meat, eggs, milk, fruits, grains etc), creating employment, providing raw materials for industries, providing medicines, providing income or money or foreign currency.
- The branches of agriculture are: crop production, animal production, forestry and wildlife, horticulture, agricultural engineering or mechanisation, agricultural economics or agribusiness and soil science.
- Agriculture is a business hence the farmer should use methods that enable high production with minimum production costs. When considering advantages and disadvantages of certain agricultural practices, the business aspect has to be carefully thought of.
- Agriculture offers many career opportunities. A farmer is not limited to a person who digs the field, weeds and waters the crops. Among other career opportunities in agriculture are lecturers, agricultural economists, researchers, veterinary doctors and farm managers. Some of the careers in agriculture are highly paying.
- Types of agriculture in Zimbabwe are mixed farming, specialised farming and diversified farming while systems of farming are shifting, subsistence farming and commercial farming.
- **NB:** Be sure to be able to distinguish between farming types and farming systems.
- The land reform programme in Zimbabwe is important for addressing colonial land ownership imbalances and also empowering the black majority into farming. The historical imbalances in land ownership disadvantaged the indigenous black people who are in fact the rightful owners of the land.

TOPIC 5: PLANTS

Introduction to the study of plants

Objectives

By the end of this topic, learners should be able to:

- identify plants within the local environment.
- list uses of plants.
- classify plants as cultivated and wild.
- identify the external parts of the plant.
- state functions of plant parts.

Important insights

- Diagrams are not enough for learning and understanding about plant parts. Real plants have to be examined for better understanding.
- Each part of the plant is important because if one part is not functioning properly, this affects the whole system of the plant. Unhealthy roots hinders the growth of healthy leaves.

Plant nutrition

Objectives

By the end of this topic, learners should be able to:

- state local organic sources of plant nutrients.
- identify sources of N. P. K.
- classify sources of plant nutrients as organic and inorganic.
- explain the importance of major plant nutrients.
- explain the importance of minor plant nutrients.
- identify nutrient deficiency symptoms in plants.

Important insights

- In N, P, K, the K stands for potassium, get this right.
- Straight fertilisers supply one main nutrient to the soil.
- Top dressing is the application of fertiliser to a growing plant.
- During rainy weather, fertilisers can be leached away.
- Field trips should be conducted to observe nutrient deficiency in plants for deeper understanding.
- Remember that the concept of *fertiliser* is not limited to commercial or inorganic fertilisers.

Vegetable crops

Objectives

By the end of this topic, learners should be able to:

- identify local vegetables.
- classify local vegetables as indigenous or exotic.
- name classes of vegetable crops.

Important insights

- Agriculture is a business. The main aim or target or goal or objective of business is profit making.
- The farmer should consider the business aspect of agriculture in all activities done in the field, the garden, the orchard, the woodlot and so on.
- Agribusiness deals with calculation of profit or loss for an enterprise, keeping of accurate and up to date records, budgeting, managing workers' wages and using resources at the farm wisely.
- Some of the records kept by the farmer are budgets, project proposals, inventories, production records and income and expenditure records.
- Farm records are for future reference, for informed decision making and for planning purposes.
- The agribusiness topic involves a lot of mathematical calculations.
- To the farmer, being able to calculate profit or loss is a very important skill. Have as much practice as possible on calculations of profit and loss.
- National, markets are government regulated.
- Agribusiness cuts across all the topics in the agriculture syllabus be it apiculture, forestry, orchard trees, ornamental horticulture, animals, farm implements and machinery, soil and so on.

To the teacher

1. All the objectives in the syllabus have been brought together for ease of reference. Please ensure that **ALL** the objectives have been covered.
2. Practical work will go a long way in equipping your class for the grade 7 final agriculture, science and technology examinations.
3. Candidates need a lot of practice in making correct choices of questions to answer section B. This is a skill that needs to be developed in the learners. Merely explaining is not enough.
4. Develop creativity and divergent production by challenging learners to generate as many solutions as possible to problems. Avoid closing them out with only one answer you prefer.

2. SCIENCE AND TECHNOLOGY SECTION (30%)

Science and Technology is one of the learning areas in the updated curriculum covered from Grade 3 to 7. It contains eleven topics namely:

1. Health and Safety	1. Forces and Magnets	1. Soil, Plants and Animals
2. Materials and Structures	2. Design and Technology	2. Landforms and Maps
3. Energy and Fuels	3. Water	3. Sustainable Resource Management
4. Electricity and Electronics	4. Weather and Climate	

It is designed to enable you to keep up with changing times and adapt to new technologies. It exposes scientific method of solving problems and advances critical thinking through various approaches to problems, posed in any given activities and experiments. Throughout this course, skills such as problem-solving are nurtured by activities that involve observing, communicating, analysing, recording and experimenting.

In addition to those skills, the provided tasks help to develop initiative, creativity, innovativeness and inquisitiveness.

Importance of Science and Technology

The world is always changing in all aspects. Science and Technology, equips learners with skills to use in an ever-changing world.

- It provides opportunities to research and draw conclusions from findings.
- It challenges to come up with new inventions basing on existing inventions in order to modernise the inventions that are already in existence.
- It promotes the discovery of new scientific concepts in the day-to-day lives.
- It is a means to test and prove perceptions and ideas that can be beneficial in today's society.

Objectives

There are many objectives in Science and Technology to help the learner to interact with the information in order to learn.

- Simple objectives that require recalling of information are, name, list, identify, state, for example, name any two elements of design.
- Some require practical involvement such as construct, manipulate, design, practice, make, administer, for example, design a model of an electronic device or administer First Aid on a wound.
- Suggest, discuss, describe are activities that seek engagement and opinions, for example, suggest ways of reducing global warming.
- The information given or the information known can be used to argue, debate, reason, distinguish, classify, compare and contrast, assess, interpret, examine and predict.
- Deductive reasoning is required when asked to justify, explain, appraise, deduce, relate, demonstrate and recognise, for example, justify the importance of keeping weather records.
- Other objectives include draw, label, illustrate, outline, locate and appreciate.

Contribution of Science and Technology to the examination

The Science and Technology learning area is taught independently however, it is tested as a component of the Agriculture, Science and Technology and Information Communication and Technology paper in the Grade 7 ZIMSEC Examinations.

Science and Technology contributes 30% of the total examination mark.

Although the marks allocated to Agriculture and Information, Communication and Technology can enable you to score a passing mark, it is important that you are adequately prepared to answer questions from the Science and Technology section as well to achieve the highest score possible.

Examination tips

The syllabus is broad therefore, it is not easy to exhaust its content. You may find that you have not adequately covered all the topics by the time of the examination.

You may cover the topics but fail to grasp them well enough. It is crucial to grasp as many concepts as possible and to substantially cover syllabus content because all learning areas contribute to your final mark and determine your chances of success.

(g) Recall

Many questions require recalling and naming. For you to be able to answer this question well, you need to recall and organise information before writing it down.

- Give one advantage of direct current.
- Name any one disadvantage of alternating current.

3. Be well-informed about the examination format.

- Here are some questions you could ask yourself as you prepare for your exam.
- How many questions are you expected to answer?
- How many questions will you answer from each section?
- How much time should you use to complete answering each question?
- What stationery do you need in the exam for example, pen, paper, ruler, rubber etc.?
- What is your candidate information for example, candidate number, region, subject etc.?

4. Give more attention to less understood topics before sitting for the examination.

5. Practise answering typical exam questions.

6. Take note of your weaknesses during mock examinations and improve on them.

SUMMARY OF THE SYLLABUS

TOPIC 1: HEALTH AND SAFETY

Human Body

Important insights

- Teeth, hair, hands, eyes, armpits and pubic area are body parts that are maintained through personal hygiene.
- Personal hygiene is maintained by toiletries such as soap and toothpaste.
- Cosmetics are items applied to the body to make it look and smell good such as lotion, deodorants and makeup.
- Equipment used to maintain personal hygiene includes combs, brushes, toothbrushes and towels.
- Incisors are the front eight teeth used for biting food.
- Canines are the next four teeth that are the sharpest and used to tear food apart.
- Premolars are the next eight flat teeth used to tear and crush food.
- Molars are the last twelve flat teeth used for grinding and crushing food.
- Tooth decay is the destruction of the tooth enamel by plaque build-up.
- Signs of tooth decay include toothache, teeth cavities, tooth sensitivity to hot and cold liquids and brown discoloration on the tooth surface.
- Tooth decay preventive measures are brushing teeth regularly using fluoride toothpaste, avoiding sugary foods and flossing.
- The digestive system is the long tube that carries food from the mouth to where waste is excreted waste the anus.

TOPIC 2 : MATERIALS AND STRUCTURES

Characteristics of Materials

Important insights

- Natural materials are unprocessed materials found in the environment.
- Man-made materials are materials made by men.
- Pure materials are materials that are made of one substance.
- Impure materials are materials that are made of more than one substance.
- Properties of materials including hardness, softness, elasticity, rigidity, fragility and brittleness.
- Three states of matter are solid, liquid and gas.
- Materials react to heat, water, acid and oxygen.
- Materials that have been subjected to change harden, soften, melt, rust or dissolve.
- Metals are solid elements that have the ability to conduct heat and electricity.
- Non-metals are elements that are not able to conduct electricity.
- Characteristics of metals are that they have a high melting point, they are ductile, malleable, sonorous, shiny, heat conductors, electricity conductors and are heavy.
- Metals also react with water to release hydrogen, are corroded by oxygen, are dissolved by acids and exist as solids except mercury.
- Characteristics of non-metals are that they are dull, brittle, are insulators, have low melting points and can be found in solid, liquid and gas state.

Elements, Mixtures and Compounds

Important insights

- Sieving is a method used to separate mixtures such as grains.
- Evaporation is a method used to separate mixtures such as solutions.
- Filtration is a water purification method that separates water from solid particles such as leaves and soil.
- Distillation is a water purification method that separates water from harmful minute particles by boiling and cooling.
- An element is a substance made of one kind of atom for example oxygen, nitrogen, hydrogen, carbon, sodium, chlorine and iron.
- An atom is the smallest particle of an element that consists of protons, neutrons and electrons.
- Protons are the positively charged particles in an atom.
- Electrons are the negatively charged particles in an atom.
- Neutrons are the neutral particle of an atom.
- The nucleus is the central part of an atom.
- Compounds are chemical combinations of two or more elements for example water is a combination of hydrogen and oxygen.
- A molecule is the smallest particle of a compound for example H_2O .

Tools

Important insights

- Tools are materials that make it easy to complete a task.
- Three classes of tools are garden tools, kitchen tools and building tools.

3. INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SECTION (20%)

Information and Communication Technology refers to all devices, applications, systems and networking components which allow individuals and organisations to access, retrieve, store, transmit, and manipulate information in a digital form. ICT systems allow us to accept data, process data, store and communicate information.

Importance of ICT

1. Communication

It is cheaper and faster to send information using ICTs. With mobile network communications and the internet one can chat or speak with someone miles away in real time.

2. Greater accessibility of services

With the use of ICT various services can be accessed in the comfort of our homes. Banking and shopping activities can be done at any given place and time, as long as internet connectivity is available. Education can now be accessed online. A degree can now be completed online from a person's home.

3. Globalisation

The world has become more connected with the use of ICTs. Video conferencing allows business people to connect worldwide rather than making trips to desired locations for business meetings. Social networking applications allow us to get in touch with our beloved from any location worldwide at a lesser cost. Virtual meetings are being held using applications such as Zoom and Skype.

4. Creation of opportunities and jobs

Various jobs have been created in the field of ICT, which include programmers, web designers, software engineers, hardware engineers to mention only a few. Entrepreneurs have come up with business ideas which have materialised into world class business organisations for example, Microsoft Inc, Apple Inc, Google, Amazon, Tesla, Huawei, Intel, Facebook, Zoom, Oracle and many others. ICT entrepreneurs are amongst the world's richest people.

5. Education

Education has been made easier by the use of electronic learning applications and the availability of a variety of learning materials on the internet. Educational videos and books can be accessed easily on the internet. Lessons can be conducted online as well.

6. Bridging the cultural gap

Greater access to technology has helped to bridge the cultural gap by helping people from different cultures to communicate with one another, and allow for the exchange of views and ideas, thus increasing awareness and reducing prejudice.

7. Improve manufacturing and quality

Computer aided machining and design allows companies to produce products to precision. This leads to quality products and speed in the production process. Robots have made it possible for repetitive tasks to be done without worrying about boredom.

Paper 1

- It consists of 40 compulsory multiple-choice questions. It consists of eight ICT questions. This means ICT questions make up 20% of paper 1. Agriculture has 20 questions (50% weight). Science and Technology have 12 questions (30% weight).

Paper 2

- Paper 2 weighs 50 marks. It has 4 sections (A, B, C and D)
- Section A has 5 questions and learners are expected to answer all. Agriculture has 3 questions and ICT and Science and Technology have one each.
- B consists of Agriculture questions only, learners answer two out of three questions.
- Section C consists of Science and Technology questions only and learners answer two out of three questions.
- Section D consists of ICT questions only and learners answer one out of two questions.
- Agriculture weighs 50% ($3 \times 5 + 2 \times 5 = 25$ marks)
- Science and Technology weighs 30% ($1 \times 5 + 2 \times 5 = 15$ marks)
- ICT weighs 20% ($1 \times 5 + 1 \times 5 = 10$ marks)

Does the 20% ICT weight affect pass rate?

- If the 20% ICT weight is ignored, it means the learner goes into the examination having already lost 20% of the examination marks.
- This affects the pass rate because 20% have been lost before the examination, and to get a good grade the learner has to get answers from all other sections correct and thus get an 80% mark, which might prove to be difficult for most learners.
- The objective of preparing for an examination is to get everything correct, so if a learner gets into an examination having already lost 20%, imagine the risk.
- Getting passionate with the ICT subject thus becomes crucial to getting a very good mark in the examination. If learners study ICT very hard it is easy for the learner to have 20% in the pocket before getting into the examination room and that is a plus.
- All the learning areas in the examination paper are equally important and should be thoroughly learnt and revised to achieve high pass rate.

Examination Tips

- The best way to get into the examination room is when you have learnt and understood the topics as required by the syllabus.
- Revise thoroughly and do a lot of typical examination questions.
- Create a revision time-table and treat all subjects with equal importance.
- Do not avoid areas that prove difficult for you, seek assistance from the teacher as soon as you fail to understand.
- Be a friend of ICT devices and practise doing what you have learnt every day.
- Use ICT tools in the study of all your subjects. Always try to use ICT tools to complete various tasks from other subjects.
- Learners should be able to use ICT devices to schedule tasks, create timetables, create own databases, create own monthly budgets, create presentations, and any other task they may wish.
- Fall in love with programming, create various programs and show their behaviour to your teacher.

- Find time to revise with others and complete various ICT tasks as a group. Learn from others and share ideas.
- Usually take breaks from studying and play games to make you refreshed and relaxed.
- ICT is better understood by practising so keep on practising till you enter the exam room.
- Use the internet to research.
- Your teacher should know you from asking too much.
- In the examination room relax, you are going to get it all correct.

SYLLABUS TOPICS AND KEY ASPECTS

TOPIC 1: ICT TOOLS

Important insights

- Learners should be able to identify and describe the three types of personal computers (desktop, laptop and palmtop). Give examples of palmtops.
- Learners should be able to define a personal computer. Draw personal computers.
- Give definition of computer peripherals. Explain hardware and the three types of hardware (input, output and storage devices).
- Give methods used to connect computer peripherals should be known. (cable and wireless)
- Diagnose and fix faults in ICT tool. Explain possible reasons for faults and give remedies.
- Maintain hardware and software.
- Maintain hardware including replacing faulty parts such as hard drives, optical disk drives, memory and power supply.
- Maintain software to include installing antivirus software, configuring firewalls, updating programs, disk defragmentation, error checking and scheduling antivirus scans.
- Assemble and disassemble ICT tools, use PC maintenance kits.

Questions you might expect

- Identifying each type of personal computer.
- Differentiate between a laptop and a desktop.
- Give any one example of a palmtop.
- Define a personal computer.
- Define input, output and storage devices.
- Identify input, output and storage devices.
- Define hardware and identify it.
- Give remedies for various ICT faults.
- Define a virus, antivirus, virus scan and firewall.
- Why do we defragment disks?
- Identify PC repair and maintenance tools and know their uses, for example, what is the use of a PC blower?

ZIMBABWE GRADE SEVEN EXAMINATIONS

AGRICULTURE, SCIENCE AND TECHNOLOGY 703/1 PAPER 1

SPECIMEN PAPER

Time: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

1. Read **all** the instructions carefully.
2. Do **not** open this booklet until you are told to do so by the invigilator.
3. Use **only** an HB pencil for all entries on the answer sheet.
4. When you are told to start choose **one** correct answer from the suggested answers and shade it **very dark**.
5. If you wish to change your answer, **erase** it **completely** with a pencil rubber and then shade the new choice.
6. If **more** than **one** letter is shaded for any one answer, that answer will be regarded as **wrong**.
7. If you **do not** understand the instructions ask the invigilator to explain them to you **before** you start.
8. Answer **all** the questions on the separate answer sheet provided.

This specimen paper consists of 14 printed pages and 2 blank pages.
Specimen Paper

[Turn over

Candidate Name

Centre Number

Candidate Number

ZIMBABWE GRADE SEVEN EXAMINATIONS

AGRICULTURE, SCIENCE AND TECHNOLOGY 703/2 PAPER 2

SPECIMEN PAPER

Time: 1 hour 30 minutes

Section A

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

Section B

Answer any **two** questions.

Write your answers in the spaces provided on the question paper.

Section C

Answer any **two** questions.

Write your answers in the spaces provided on the question paper.

Section D

Answer any **one** question.

Write your answers in the spaces provided on the question paper.

FOR EXAMINER'S USE	
Section A	
1	
2	
3	
4	
5	
Section B	
Section C	
Section D	
TOTAL	

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Specimen Paper

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GRADE 7 EXAMINATION PRACTICE 1

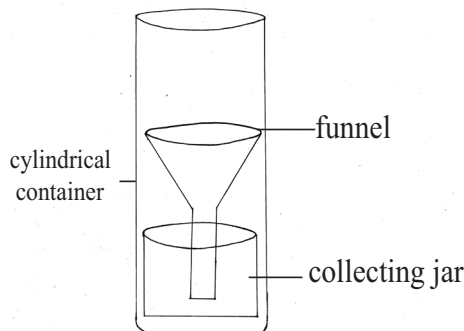
AGRICULTURE, SCIENCE AND TECHNOLOGY 703/1

PAPER 1

TIME: 1 HOUR 45 MINUTES

- When you are told to start choose **one** correct answer from the suggested answers.
- Answer **all** the questions on the separate answer sheet.

1. Which of these tools should be greased regularly?
A. Hoe B. Axe C. Wheelbarrow D. Hosepipe
2. The handle of a pick should be
A. made from wood always. B. of reasonable length.
C. made from metal always. D. long and strong.
3. Weather forecasts help farmers to make decisions about
A. food to eat. B. crops on demand. C. plants to grow. D. fashion.
4. What is the unit of measurement for rainfall?
A. °C B. ml C. cm³ D. mm
5. The instrument in the diagram is used to measure



- A. temperature. B. humidity. C. rainfall. D. air pressure.
6. Farmers in a village want to start a gardening project. There is no natural source of water near the site they identified. A solution to the problem is
A. abandoning the project. B. keeping animals instead of gardening.
C. digging a well or drilling a borehole. D. creating a river.
 7. Which of the following is a part of a watering can?
A. tines B. blade C. fine rose D. paint
 8. A variety of carrots is
A. nantes. B. money maker. C. red khakhi. D. drumhead.

21. Bulimia is an eating disorder in which one

- A. avoids eating food in order to starve.
- B. eats more food than is necessary.
- C. over eats food then forces vomiting.
- D. eats an unbalanced diet regularly.

22. Which one of the following is a building tool?

- A. Fork
- B. Trowel
- C. Rake
- D. Winnowing basket

23. Materials that break easily when dropped are

- A. rigid.
- B. soft.
- C. brittle.
- D. elastic.

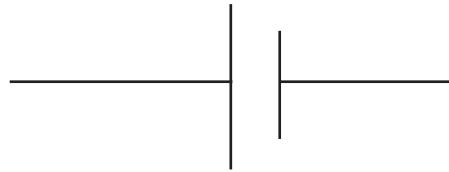
24. _____ is a substance that burns to release energy.

- A. Fire
- B. Energy
- C. Electricity
- D. Fuel

25. What is potential energy?

- A. moving
- B. stored
- C. clean
- D. non-renewable

26. What does the following electrical symbol represent?



- A. Load
- B. Switch
- C. Voltmeter
- D. Cell

27. What causes friction?

- A. The rubbing of two materials together.
- B. The flow of current in the circuit.
- C. The use of solar appliances.
- D. Greasing and oiling materials.

28. Which one of the following is an example of the principle of proportion when designing food?

- A. The use of more than one ingredient.
- B. The use of correct amount of ingredients.
- C. The use of two contrasting colours of ingredients.
- D. The use of different textures of ingredients.

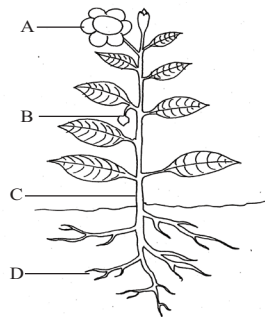
29. What is water infiltration?

- A. It is the flowing of water from a high place to a low place.
- B. It is the washing away of top soil by rain water.
- C. It is the filling of dams during the rainy season.
- D. It is the sinking of water into soil.

30. In indigenous knowledge, storks, cuckoos and jacobins are birds that indicate

- A. the beginning of the raining season.
- B. drought in the following year.
- C. a cold season ahead.
- D. the end of a bumper harvest.

31. What is the function of the part labelled D in the plant?



- A. to make food for the plant.
- B. to absorb water and nutrients.
- C. to produce fruits.
- D. to keep seeds.

32. What differentiates fish from amphibians?

- A. The way in which they reproduce.
- B. The way in which they regulate their temperature.
- C. The texture of their skin.
- D. They have a backbone.

33. Which of the following electronic gadget is **NOT** portable?

- A. Notebook
- B. Desktop
- C. Tablet
- D. Smartphone

34. Devices that give information to the user are called

- A. output devices.
- B. storage devices.
- C. monitor devices.
- D. input devices.

35. A cyber-attack scheme which involves keeping a false website or sending false e-mails in order to get secret information like usernames and passwords is called

- A. cyber bullying.
- B. cyber punk.
- C. cyber stalking.
- D. phishing.

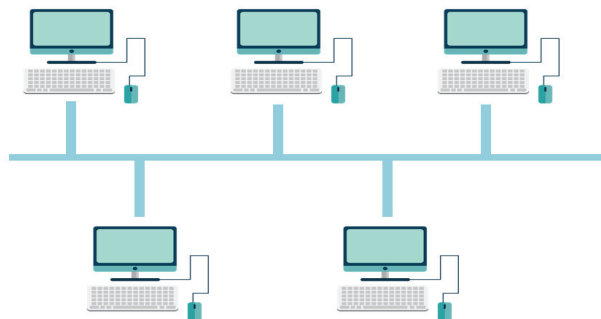
36. Keeping a copy of a file on a separate device so that it can be used to recover the original if it is damaged is called

- A. saving.
- B. uploading.
- C. backing up.
- D. restoring.

37. MAN stands for

- A. Metropolitan Area Network.
- B. Middle Application Network.
- C. Model Application Name.
- D. Metropolitan Area Name.

38. What is the name of the network topology shown in the diagram?



- A. Star
- B. Bus
- C. Ring
- D. Straight

GRADE 7 EXAMINATION PRACTICE 1

AGRICULTURE, SCIENCE AND TECHNOLOGY 703/2

PAPER 2

TIME: 1 HOUR 30 MINUTES

SECTION A

Answer **all** questions in this section.

1.
 - (a) Define the term agriculture. [1]
 - (b) Give **one** importance of agriculture to the family. [1]
 - (c) Name **one** digging tool. [1]
 - (d) Identify **one** way a farmer maintains a slasher. [1]
 - (e) What is a mattock used for? [1]
2.
 - (a) Identify any **one** season of Zimbabwe. [1]
 - (b) Which season runs between mid-May and August? [1]
 - (c) State any month in the post-rainy season. [1]
 - (d) In which season do farmers weed their field crops? [1]
 - (e) Name the season in which most field crops are harvested in Zimbabwe. [1]
3.
 - (a) What is soil? [1]
 - (b) Name **any** materials used for making a compost. [1]
 - (c) Give **one** advantage of compost manure over inorganic fertilisers. [1]
 - (d) Name any **one** organism important for composts. [1]
 - (e) Explain why soil organisms are important. [1]
4.
 - (a) Define tooth decay. [1]
 - (b) Explain **one** cause of tooth decay. [1]
 - (c) State **one** way in which tooth decay can be prevented. [1]
 - (d) List the food nutrients found in a balanced diet. [1]
 - (e) Name a deficiency disease caused by lack of iodine in the body. [1]
5.
 - (a) Give any **one** type of password. [1]
 - (b) Name **one** type of an antivirus program. [1]
 - (c) State **one** way by which computer viruses can be spread. [1]
 - (d) Describe any **one** sign that may show that a computer has been affected by a computer virus. [1]
 - (e) Why is a password important on a computer system? [1]

SECTION B

Answer any **two** questions from this section.

6. (a) What are ornamental plants? [1]
(b) Give any example of an ornamental plant. [1]
(c) Describe the care and management of ornamental plants. [1]
(d) Give any **one** benefit of ornamental plant farming. [1]
(e) Name any **one** class of ornamental plants. [1]
7. (a) List down **any one** use of domestic animals. [1]
(b) Name any:
(i) natural feed for poultry. [1]
(ii) commercial feed for poultry. [1]
(c) What is the advantage of natural animal feeds over commercial feeds? [1]
(d) How do farmers ensure good health in domestic animals? [1]
8. Below is an egg production record for a poultry project at Happy Moments Farm.

Month June 2020	Grade of eggs			Daily totals
	Large	Medium	Small	
01/06	234	66	39	339
02/06	200	79	66	345
03/06	251	34	43	328
04/06	270	26	54	350
05/06	215	93	21	329
Total	1 170	295	223	

- (a) How many medium-sized eggs did the farmer collect on 4 June 2020? [1]
(b) Why did the farmer grade the eggs? [1]
(c) Large eggs were sold at \$3.00 each crate. How much did the farmer make from large eggs in the five days? [2]
(d) Name any **one** production cost for the enterprise. [1]

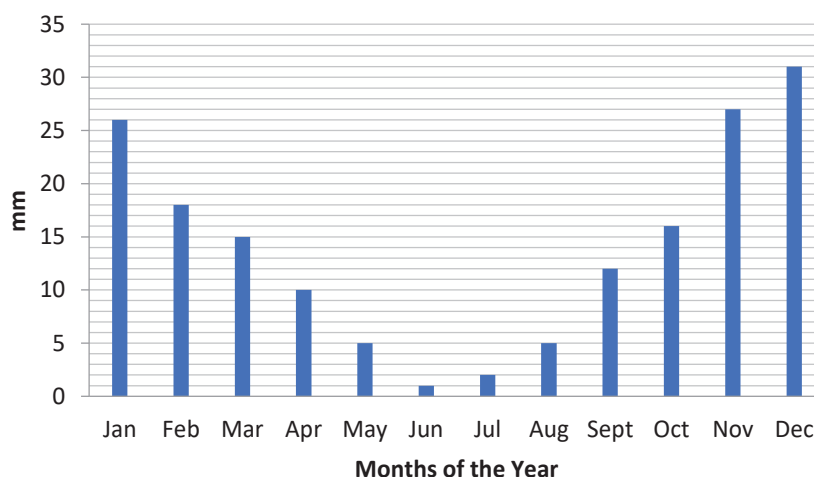
SECTION C

Answer any **two** questions from this section.

9. (a) Which equipment can be used to generate electricity from the sun? [1]
(b) Give any **one** advantage of using solar energy. [1]
(c) Explain how images are formed through light. [1]
(d) Why is it impossible to see images in the dark? [1]
(e) Give any **one** disadvantage of using solar energy. [1]

10. Study the graph and answer the questions that follow.

Rainfall Graph

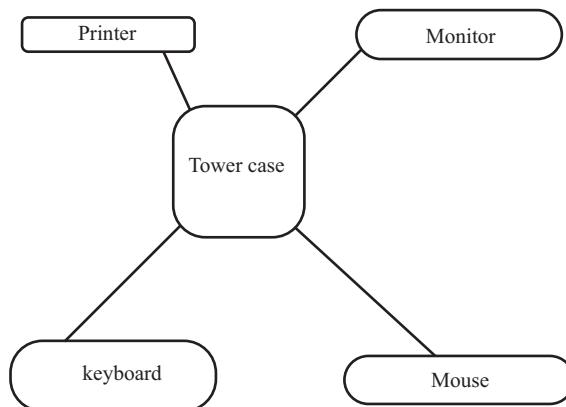


- (a) Which month received the least rainfall? [1]
- (b) Which month received the highest rainfall? [1]
- (c) What is the total amount of rainfall received in the year? [1]
- (d) What is the average amount of rainfall received for the whole year? [1]
- (e) Which **two** months received similar amounts of rainfall? [1]
11. (a) What is photosynthesis? [1]
- (b) State any **one** condition necessary for photosynthesis to take place. [1]
- (c) Explain how a leaf can be tested for starch. [1]
- (d) Which part of the plant makes food? [1]
- (e) Explain the use of roots in plants. [1]

SECTION D

Answer any **one** question from this section.

12. (a) The diagram shows a type of computer.



- (i) What type of computer is represented by the diagram? [1]
- (ii) Give the other name for the tower case. [1]

(iii) Give any **one** computer part found inside the tower case.

[1]

(b) List any **one** example of a palmtop.

[1]

(c) State **one** advantage of using computers.

[1]

13. (a) The table shows a computer program.

	A	B	C	D
1	Name	Age		
2	Chakaz	34		
3	Matemera	18		
4	Chimwaza	22		
5	Vanorira	30		
6				

(i) What type of program is shown?

[1]

(ii) How do we name a cell using the above program?

[1]

(b) Study the figures shown in the following table.

	A	B
1	Name	Age
2	Chakaz	34
3	Matemera	18
4	Chimwaza	22
5	Vanorira	30
6		
7	Average age	26

(i) Write down the formula that is used to find the average of the ages.

[1]

(ii) Which cells from the table are highlighted to create a chart?

[1]

(iii) In Microsoft Office Excel rows are labelled using _____.

[1]

GRADE 7 EXAMINATION PRACTICE 4

AGRICULTURE, SCIENCE AND TECHNOLOGY 703/2

PAPER 2

TIME: 1 HOUR 30 MINUTES

SECTION A

Answer **all** questions in this section.

1. The diagram shows a tool used in agriculture.

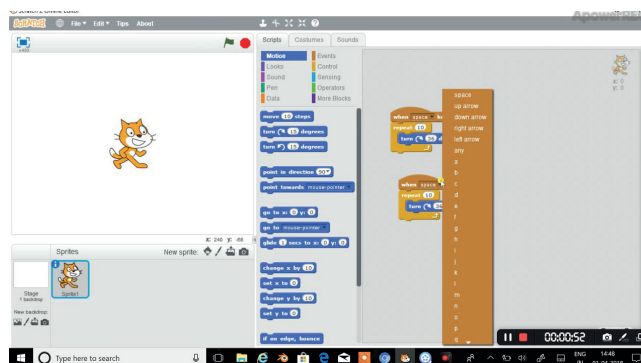


- (a) (i) Name the tool. [1]
(ii) Describe its function. [1]
- (b) A team of young farmers are using slashers.
(i) What materials are used to make a slasher? [1]
(ii) Give any **one** safety precaution taken when using a slasher. [1]
- (c) Suggest what a farmer should do after using a hoe. [1]
2. (a) List down **any two** soil components. [2]
(b) A grade 7 learner poured **500ml** of water on **two** oven dry soil samples of equal mass. One was a clay sample while the other was a sand sample. The wet samples were left in the sun for three days.
(i) Which sample weighed more after the three days? [1]
(ii) What conclusion can be drawn from the experiment? [1]
(c) Give any **one** source of soil organic matter. [1]
3. (a) What are wild plants? [1]
(b) Compare cultivated to wild plants. [1]
(c) Complete the following table on wild plants.

Name of wild plant	Use
Black jack	_____

- (d) (i) Give one cause of wild plant damage. [1]
(ii) How can human-induced wild plant damage be prevented? [1]

4. (a) The area near a magnet is called _____. [1]
- (b) State any **one** endangered animal in Zimbabwe. [1]
- (c) What name is given to an imaginary vertical line from the North Pole to the South Pole that is marked 0°? [1]
- (d) How are chemical compounds formed? [1]
- (e) How can one control the spread of veld fires? [1]
5. (a) Name any **one** computer software. [1]
- (b) What name is given to the following image in Scratch programming? [1]



- (c) Name the devices used for the following:
 - (i) Typing documents _____ [1]
 - (ii) Selecting items _____ [1]
- (d) The flicking I beam on a word document is called a _____. [1]

SECTION B

Answer any **two** questions from this section.

6. Study the business activities of Farmer Ncube who grows onions.

Bought seeds, chemicals and fertiliser	\$212.00
Paid labour	\$ 48.00
Paid water and electricity bills	\$ 42.00
Sold onion bulbs	\$250.00

 - (a) Work out total expenses. [2]
 - (b) State whether the farmer made a profit or loss. [1]
 - (c) What could have caused the profit or loss? [1]
 - (d) Name any record the farmer should keep. [1]
7.
 - (a) What term is used to refer to bee keeping? [1]
 - (b) Name the product from the keeping of bees. [1]
 - (c) Give any **one** importance of the product from bees. [1]
 - (d) What name is given to the shelter of bees? [1]
 - (e) Young learners can engage in fund raising through small livestock production. Name any **one** small livestock the young learners can keep. [1]

GRADE 7 EXAMINATION PRACTICE 20

AGRICULTURE, SCIENCE AND TECHNOLOGY 703/1

PAPER 1

TIME: 1 HOUR 45 MINUTES

- When you are told to start choose **one** correct answer from the suggested answers.
- Answer **all** the questions on the separate answer sheet.

1. Choose a correct set of tools **A, B, C** or **D**.

Class of tools	Examples
A. Sickle	hoe
B. Digging	mattock, spade
C. Watering	hosepipe, secateurs
D. Workshop	bucket, pliers

2. One disadvantage of agrochemicals is that they
- A.** are the cheapest method of weed, pest and disease control.
B. are not environmentally-friendly.
C. decrease yields.
D. are fast.
3. Colour code for deadly poisonous agrochemicals is
- A.** purple. **B.** red. **C.** orange. **D.** green.
4. Farmers can be deterred from deforestation through
- A.** giving them command agriculture inputs. **B.** heavy fines and penalties from EMA.
C. light fines and penalties from EMA. **D.** persuading them not to cut young trees.
5. When plants are attacked by frost, the plants can get killed as they
- A.** thaw. **B.** evaporate. **C.** condense. **D.** precipitate.
6. National markets are different from local markets in that
- A.** local markets are only found in rural areas.
B. produce is sold at low prices on local markets.
C. national markets are regulated by the government.
D. local markets are any buyer in the farmer's local area.
7. Study the business activities done by a tomato grower.

Activity	Date	Description of Activity
A.	01/04/2020	Bought seeds and fertilisers for \$132.00
B.	01/04/2020	Bought pesticides for \$10.00
C.	28/05/2020	Sold packets of tomatoes for \$223.00
D.	29/05/2020	Bought packaging plastics for \$12.00

On an income and expenditure record, which one of **A, B, C** or **D** would be recorded as income?

GRADE 7 EXAMINATION PRACTICE 20

AGRICULTURE, SCIENCE AND TECHNOLOGY 703/2

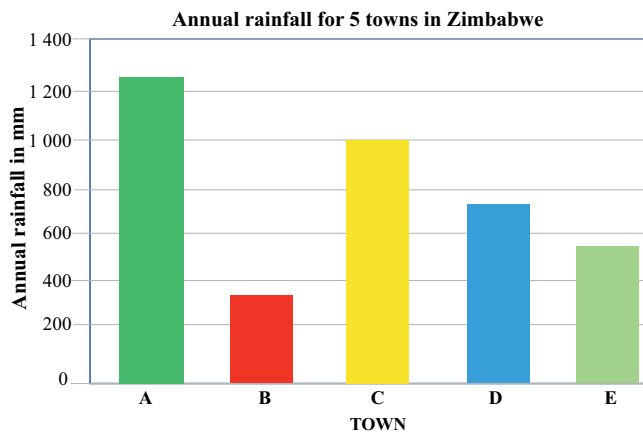
PAPER 2

TIME: 1 HOUR 30 MINUTES

SECTION A

Answer **all** questions in this section.

1. (a) Name **one** artificial source of water. [1]
(b) State any **one** cause of water pollution. [1]
(c) Explain **one** effect of water pollution to animals. [1]
(d) Suggest how a farmer can reduce water pollution. [1]
(e) Identify a government parastatal responsible for water provision. [1]
2. Study the graph of annual rainfall for five towns in Zimbabwe.



- (a) What is the annual rainfall for town **D**? [1]
(b) In which natural farming region is town **C**? [1]
(c) Which town is the hottest? [1]
(d) _____ and rainfall mainly determine the region an area falls in. [1]
(e) With no irrigation facilities, which field crop should farmers in town B grow? [1]
3. (a) Where should farmers store their implements and machinery? [1]
(b) Which weather and climatic conditions reduce the life of a machine? [1]
(c) Farm equipment should be recorded in the _____. [1]
(d) What problem arises from storing farm equipment in moist conditions? [1]
(e) Suggest how a farmer should care for farm machines. [1]

SECTION C

Answer any **two** questions from this section.

9. (a) Name a type of food that helps to prevent scurvy. [1]
(b) A material that is used to make digging tools should be _____. [1]
(c) State **one** condition necessary for plants to make food. [1]
(d) Which season in Zimbabwe begins from mid-May and ends mid-August? [1]
(e) Mention **one** material that cannot decay. [1]
10. (a) Which type of map uses contour line to describe features on a map? [1]
(b) Name **one** material that is not attracted by magnets. [1]
(c) Particles of an atom which are positively charged are called _____. [1]
(d) Identify a Sexually Transmitted Infection that is caused by a bacteria. [1]
(e) Name a tool that has a wedge shape. [1]
11. (a) Which fuel is obtained from biomass? [1]
(b) What method can one use to separate oil and water? [1]
(c) Name the process used to split water molecules. [1]
(d) Which habitat is used by a crocodile? [1]
(e) A crocodile's diet consists mainly of _____. [1]

SECTION D

Answer any **one** question from this section.

12. (a) List any mobile network operator in Zimbabwe. [1]
(b) Mobile network is transmitted by _____. [1]
(c) Which network is faster in data connection **3G** or **4G**? [1]
(d) Apart from making calls, what other services are provided by mobile network providers? [1]
(e) What is needed inside a cellphone for it to access mobile network provider services? [1]
13. (a) Which knowledge is required to improve on typing? [1]
(b) Give **one** example of a word processor. [1]
(c) List any feature available in a word processor. [1]
(d) How is Microsoft Office Word launched from a desktop icon? [1]
(e) Name any external object that can be imported to a word document. [1]

GRADE 7 EXAMINATION PRACTICE PAPER 1 ANSWERS

EXAM 1	EXAM 2	EXAM 3	EXAM 4	EXAM 5	EXAM 6	EXAM 7	EXAM 8	EXAM 9	EXAM 10
1. C	1. C	1. B	1. A	1. C	1. B	1. C	1. B	1. D	1. B
2. B	2. C	2. A	2. C	2. B	2. C	2. B	2. B	2. B	2. A
3. C	3. C	3. B	3. C	3. C	3. A	3. D	3. A	3. A	3. B
4. D	4. D	4. A	4. A	4. D	4. B	4. D	4. A	4. C	4. C
5. C	5. D	5. B	5. D	5. C	5. C	5. C	5. C	5. A	5. D
6. C	6. D	6. B	6. C	6. C	6. C	6. A	6. B	6. D	6. D
7. C	7. C	7. C	7. D	7. B	7. C	7. C	7. D	7. A	7. C
8. A	8. C	8. B	8. D	8. D	8. C	8. B	8. B	8. D	8. C
9. C	9. D	9. B	9. C	9. B	9. A	9. A	9. A	9. C	9. B
10. D	10. C	10. C	10. C	10. A	10. C	10. B	10. D	10. C	10. A
11. B	11. C	11. A	11. C	11. C	11. B	11. D	11. C	11. C	11. B
12. C	12. C	12. A	12. B	12. B	12. D	12. A	12. D	12. D	12. C
13. B	13. D	13. C	13. B	13. D	13. A	13. D	13. B	13. D	13. C
14. C	14. A	14. D	14. A	14. A	14. A	14. C	14. B	14. B	14. A
15. C	15. A	15. C	15. D	15. C	15. D	15. B	15. B	15. C	15. C
16. B	16. D	16. B	16. D	16. C	16. D	16. A	16. A	16. A	16. B
17. B	17. C	17. B	17. C	17. C	17. B	17. D	17. C	17. C	17. C
18. D	18. C	18. C	18. D	18. B	18. A	18. C	18. C	18. D	18. C
19. C	19. C	19. B	19. B	19. A	19. C	19. C	19. D	19. B	19. B
20. C	20. B	20. C	20. C	20. C	20. B	20. C	20. D	20. C	20. D
21. C	21. B	21. D	21. A	21. D	21. D	21. A	21. C	21. A	21. B
22. B	22. B	22. A	22. C	22. C	22. A	22. B	22. A	22. B	22. C
23. C	23. D	23. A	23. A	23. A	23. D	23. D	23. C	23. A	23. B
24. D	24. A	24. B	24. B	24. C	24. C	24. B	24. A	24. C	24. A
25. B	25. C	25. A	25. A	25. D	25. C	25. C	25. D	25. D	25. C
26. D	26. D	26. D	26. D	26. A	26. D	26. D	26. D	26. C	26. A
27. A	27. A	27. C	27. D	27. C	27. A	27. D	27. B	27. B	27. B
28. B	28. C	28. D	28. C	28. D	28. B	28. C	28. C	28. B	28. B
29. D	29. C	29. D	29. A	29. C	29. B	29. B	29. B	29. A	29. C
30. A	30. B	30. B	30. C	30. A	30. C	30. D	30. A	30. C	30. B
31. B	31. D	31. B	31. A	31. C	31. D	31. C	31. B	31. C	31. D
32. C	32. B	32. B	32. D	32. B	32. B	32. C	32. C	32. A	32. B
33. B	33. D	33. B	33. C	33. B	33. C	33. A	33. A	33. C	33. A
34. A	34. C	34. A	34. B	34. B	34. B	34. D	34. A	34. C	34. C
35. D	35. D	35. C	35. B	35. C	35. A	35. A	35. B	35. A	35. D
36. C	36. A	36. B	36. D	36. B	36. A	36. A	36. C	36. D	36. B
37. A	37. C	37. D	37. B	37. B	37. C	37. C	37. B	37. C	37. B
38. B	38. C	38. B	38. C	38. B	38. B	38. A	38. A	38. A	38. B
39. C	39. A	39. C	39. A	39. C	39. A	39. D	39. B	39. D	39. B
40. D	40. C	40. D	40. D	40. B	40. C	40. C	40. C	40. A	40. B

GRADE 7 EXAMINATION PRACTICE 2 – PAPER 2 ANSWERS

Section A (Answers)

1. (a) four/ 4
(b) (i) weeding field crops/ applying fertilisers to field crops/ cultivating/ protecting crops from diseases.
(ii) post rain/ cool dry.
(c) wheat under irrigation.
(d) hot wet.
2. (a) (i) compost/ compost heap.
(ii) soil/ maize husks/ plant residue: grass/ leaves/ crop remains/ animal waste/ biodegradable kitchen waste.
(b) moisture/ warmth/ oxygen/ air/ presence of micro-organisms like bacteria.
(c) organic matter.
(d) turning compost heaps for aeration/ watering the heaps to provide moisture/ covering with suitable materials to prevent heat loss/ introducing some matter at a more advanced decay stage to introduce bacteria.
3. (a) (i) leaking pipes/ inefficient water pump/ flooding during irrigation/ high temperatures/ none practise of water conservation measures/ irrigating when the sun is too hot.
(ii) repair leaks on pipes as soon as discovered/ regular checking of pipes for leaks/ use drip irrigation/ practise moisture conservation methods/ mulching/ irrigating during cool times of the day.
(b) (i) watering can.
(ii) an arrow should point at the fine rose i.e. (a device, like a cap, with small holes).
(iii) top handle helps in carrying the can/ side handle is tipping the can while watering.
4. (a) The exchange of carbon dioxide for oxygen in the lungs by inhaling and exhaling air.
(b) (i) Trachea/ Windpipe.
(ii) Lung.
(c) Carbon dioxide.
(d) Asthma/ Covid-19/ Tuberculosis/ Pneumonia.
5. (a) computer peripheral or peripheral device
(b) input
(c) output devices
(d) Hard disk drive/ CD/ DVD/ Flash disk/Memory Stick/ Memory card/ Solid state drive.
(e) Hardware cannot work without software/ hardware needs software to make it function.

Section B (Answers)

6. (a) cabbage/ rape/ covo/ spinach/ kale
(b) cabbage: drumhead
Rape: English giant
Covo:
Spinach:
Kale:
(c) clearing the land/ stumping/ digging/ making beds/ making planting stations/ manuring/ slashing tall grass.

GRADE 7 EXAMINATION PRACTICE 4 - PAPER 2 ANSWERS

Section A (Answers)

1. (a) (i) secateurs
(ii) pruning flowers/ hedges/ trimming flowers/ hedges/ lawns.
(b) (i) metal/ steel/ wood for the handle/ rubber for the handle.
(ii) spacing out/ using efficient slashers/ adequate supervision/ concentration/ resting when tired/ firm grip of slashers.
(c) storing in a safe place/ storing in the shed/ placing on a tool rack/ cleaning/ repairing any broken parts/ sharpening/ grinding.
2. (a) mineral matter/ soil water/ soil air/ organic matter.
(b) (i) clay sample
(ii) clay has better water retention capacity than sand/ clay holds/keeps water better than sand/ sand loses moisture faster than clay.
(c) plant matter/ animal matter.
3. (a) plants that grow naturally/ plants that grow without being planted by humans.
(b) cultivated plants are grown by people whereas wild plants just grow naturally.
(c) relish/ vegetable/ medicinal/ treating some diseases/ feed for livestock/ making compost.
(d) drought/ pests/ diseases/ frost/ wind/ animals/ storms/ extreme temperatures/ overgrazing/ veld fires.
(e) destocking/ avoiding the starting of veld fires/ putting out fires completely.
4. (a) magnetic field.
(b) Pangolin/ white rhino.
(c) Greenwich meridian/ prime meridian.
(d) When two elements join together in a chemical bond.
(e) By constructing fireguards.
5. (a) Windows XP
(b) Sprite
(c) (i) – keyboard
(ii) – mouse
(d) cursor

Section B (Answers)

6. (a) $212 + \$48 + \$42 = \$302$
(b) loss
(c) poor management/ some crops were damaged by various factors/ poor marketing/ poor customer care in the past/ poor budgeting/ family consumed too much without paying for the onions/ gave too many onions to friends.
(d) onion production record/ inventory/ diary/ sales e.g. invoices/ receipts/ budget/ income and expenditure.
7. (a) apiculture
(b) honey
(c) food/ medicinal/ raw material for the food processing industry.
(d) hive
(e) poultry/ layers/ indigenous chickens/broilers/ rabbits.