



DEPARTMENT OF EDUCATION

MOPANI EAST DISTRICT

SOCIAL SCIENCES GEOGRAPHY OCTOBER / NOVEMBER 2023

MARKS: 75

Stanmorephysics.com TIME: 2 hours

QUESTION PAPER

This question paper consists of 8 pages including the cover page.



INSTRUCTIONS AND INFORMATION

- 1. This question paper consists of TWO (2) questions.
- 2. ALL questions are compulsory.
- 3. Always refer to sources when answering questions.
- 4. Write neatly and legibly.



SECTION A: SURFACE FORCES THAT SHAPE THE EARTH

QUESTION 1

Choose the correct answer for those given in brackets. Write only the correct word/concept next to question number on your ANSWER BOOK.

- 1.1.1. The laying down of the rivers load (erosion/deposition).
- 1.1.2. A chemical process whereby iron minerals in rock react with dissolved oxygen to produce a red or yellow colour, called rusting, is called (oxidation / carbonation).
- 1.1.3. A process whereby very hard rock expands during hot days and contracts during cold nights to eventually split in layers (like an onion) causing rounded shaped rocks is called (blocking / exfoliation).
- 1.1.4. Weathering caused by roots of plants (chemical/biological)
- 1.1.5 raised banks of the river (Levee/Floodplain)

 $(5 \times 1) (5)$

Read the information below and answer the questions that follow:

All things on the surface of the earth are affected by the action of the weather. Weathering of soil and rocks is very slow. There are three types of weathering namely, Physical, biological and chemical weathering.

Adapted from Social Sciences Learner's (Solutions for all)

1.2.1	Define the term weathering.	$(1 \times 2) (2)$
1.2.2	Name THREE types of weathering.	(3 x 1) (3)
1.2.3	Describe TWO negative impact of human activities on weathering	(2x 2) (4)
1.2.4	Explain TWO ways to reduce negative impact of weathering	(2 x 2) (4)
1.2.5	Mention any TWO agents of weathering.	(2 x 1) (2)

[15]

1.3. Read he extract below and answer the following question

FACTORS THAT CONTRIBUTE TO SOIL EROSION

Aside from desertification, there is no doubt that human activities are a major cause of soil erosion in general. Construction of roads and buildings, logging, mining and agricultural production have resulted in large amounts of soil erosion around the world. When soil erodes, it is usually the top soil that erodes first, which means that potential of the eroded area to produce food or forage is greatly reduced. In addition, the eroded soil may be deposited in the river or lakes. Agricultural activities such as monoculture and overgrazing also contribute to soil erosion

The cost of removing the deposits may be considerable, and if the eroded soil was contaminated in any way the deposited soil may spread the contamination over a wider area. Agricultural production, including forage production, involves removing vegetation from the soil surface. Ploughing, cultivating, mowing and grazing are examples of how vegetation is removed in forage production.

The extent of soil erosion depends to a great degree on how the removal of vegetation is handled. Leaving the soil surface with little or no vegetation provides a prime opportunity for soil to be eroded by wind or water moving across the soil surface.

1.3.1. Define the following concept soil erosion

 $(1 \times 2)(2)$

- 1.3.2. Quote **TWO** human activities from the extract above which are a major cause of soil erosion. (2 x 1) (2)
- 1.3.3 Mention **ONE** agricultural activity that contribute to soil erosion. (1x1) (1)
- 1.3.4 Evaluate any **TWO** negative impacts of soil erosion on water sources like rivers.

(2x2)(4)

1.3.5 Discuss **THREE** ways in which soil erosion can be minimized

(3x 2) (6)

[35]



SECTION B: RESOURCE USE AND SUSTAINABILITY

QUESTION 2: read the extract below and answer the following questions

Figure 2.1

Sustainable development could be described as meeting the needs of the present without compromising the ability of future generations to meet their needs. The natural resources of the Earth, including the air, water, land, flora and fauna must be safeguarded for the benefit of present and future generations through careful planning and management.

(Taken from World Summit 2000 update)

Source: Spot On (NCS) grade 9, p126

- 2.1.1. Explain what is meant by sustainable use of resources (2 x 1) (2)
- 2.1.2. Explain the way in which resources can be used sustainably (3x2) (6)
- 2.1.3. Differentiate between renewable and non-renewable resources (2x2) (4)
- 2.1.4. Mention any **THREE** examples of natural resources from the extract (3x1) (3)

(15)

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2.2 GENETIC MODIFICATION OF CROPS

Study the source below and answer the questions that follows

GM seeds are produced primarily by only a few large companies who own the intellectual property for the genetic variations. A transition to GM crops would closely align global food production with the activities of a few key companies. From an economic standpoint, that poses a risk to long-term food security by creating the potential for a single-point failure. If that company failed, then the crop it provides would not be available to the people who depend on that crop.

Source: National geographic.org

2.2.1 Describe genetically modified crops	(1x2) (2)

- 2.2.2 List **THREE** disadvantages of genetically modified crops (3x1) (3)
- 2.2.3 Explain **THREE** advantages of genetically modified crops (3x2) (6)

(11)

2.3. Read the extract and look at the cartoon below and answer questions that follows:

Food is a basic need. It is essential for our survival, and therefore it is one of our most important resources. The world's population is already over seven billion and growing. As the population increases, the demand for food and the pressure on the resources that produce food will also increase. The 3rd Global Food Security and Sustainability Summit 2023 was held on 18 – 19 September 2023. The Summit addressed the critical issues of food security from local to global level.



2.3.1. Define the concept food security?

(1x 2)

2.3.2 Name the basic need mentioned in the extract

- $(1 \times 1)(1)$
- 2.3.3. In which year was the Global Food Security and Sustainable Summit held? (1x) (1)
- 2.3.4. According to the extract, what is the main cause of demand for food? (1 x 2(2)
- In a paragraph of approximately 8 lines, explain how South Africa can promote food security.
 (4x2) (8)

(14)

TOTAL: 75





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GRADE 9

2023 FINAL EXAMINATION

SOCIAL SCIENCES

GEOGRAPHY

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MARKING GUIDELINE

This marking guideline consists of 5 pages including the cover page.

1.1 Deposition√ Oxidation 1.1.2 1.1.3 Exfoliation√ 1.1.4 Biological√ 1.1.5 Leveev [5] 1.2. 1.2.1 The breaking down of rocks into smaller pieces√√ The breaking down of rocks and soil by action of weather (2x1)(2)1.2.2. **THREE** types of weathering Physical weathering√ Chemical weathering√ Biological weathering√ (3x1)(3)1.2.3. TWO human impact • Building settlement Vimorephysics.com Making farms√√ Digging mines√√ Constructions (building roads and railways) √√ (Any two) (2X2)(4)1.2.4 **TWO** ways to reduce negative impact of weathering • Plant grass and trees (plant vegetation as ground cover) $\sqrt{\sqrt{}}$ • Wind breakers – to stop the wind from washing soil away $\sqrt{\sqrt{}}$ • Contour ploughing – to reduce the flow of water and soil it carries $\sqrt{\sqrt{}}$ Terrace farming√√ (Any two) (2x2)(4)1.2.5. **TWO** agents of weathering. Water√ Ice√ Acids√ Plants√ Salt√ Animals√ Changes in temperature√ (any two) (2x1)(2)[15]

1.3

- 1.3.1 Soil erosion is the removal of topsoil by running water, wind or ice $\sqrt{1}$ (1x2) (2)
- 1.3.2 Construction of roads and buildings / mining / agricultural production and logging $\sqrt{\sqrt{(2x1)(2)}}$
- 1.3.3 Monoculture / overgrazing√

(1x1)(1)

1.3.4 Soil will be deposited in rivers causing siltation, the volume of water in rivers will drop. If the soil contains poisonous substances, water in the river will be contaminated, causing animal life in the river to die. People that use the river water also be affected and have diseases like diarrhoea. $\sqrt[4]{\sqrt{\sqrt{1}}}$ (2x2) (4)

1.3.5

Any three relevant answers (15)

QUESTION 2: RESOURCE USE AND SUSTAINABILITY

2.1

2.1.1 Meeting the needs of the present without compromising the ability of future generations to meet their needs. $\sqrt{\sqrt{}}$ (1x2) (2)

2.1.2

Large scale planting of trees / Protecting animals / Finding other alternatives and cleaner sources of energy / Practising crop rotation and or rotational grazing / Slowing down population growth / Recycling and re-using of resources / Introducing strict laws and fines to offender / Awareness campaigns and educational programme. \(\sqrt{\sq}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}

2.1.3

- renewable resources resources that **CAN** be renewed/ reused/regenerated/replenished $\sqrt{\sqrt{}}$ (2X1) (2)
- non-renewable resources that CANNOT be renewed/ reused/regenerated/replenished√√
 (2X1) (2)

2.1.4

- Land
- Water
- Air
- Fauna
- Flora
- Soil
- minerals

√√√ Any THREE relevant answers

(3X1)(3)

[15]

2.2 GENETICALLY MODIFIED CROPS

2.2.1 GM crops are plants that have been modified, using genetic engineering, to alter their DNA sequences to provide some beneficial trait. $\sqrt{\sqrt{}}$ (1X2) (2)

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2.2.2

- · Loss of nutrition
- Allergic reaction
- Cost of cultivation
- It is more inclined towards marketing of farming $\sqrt{\sqrt{}}$ (3X1) (3)

2.2.3

For example, genetic engineering can improve crop yield, resulting in greater production of the target crop. Scientists can also engineer pest-resistant crops, helping local farmers better withstand environmental challenges that might otherwise wipe out a whole season of produce. Crops can even be engineered to be more nutritious, providing critical vitamins to populations that struggle to get specific nutrients needed for healthy living. \(\sqrt{\sqrt

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2.3				
2.3.1 Food security is when all people have access to enough safe nutritious food to				
keep them healthy and active $\sqrt{}$	(1x2) (2)			
2.3.2 Food√	(1X1) (1)			
2.3.3 2023√	(1X1) (1)			
2.3.4 Increase in population numbers√√	(2X1) (2)			

2.3.5

Promote small scale irrigation/ Encourage local vegetable gardening / provide monetary support for farmers / wastage control / improve infrastructure / use fertilizer more efficiently /rural development / improve research and technology to benefit (4x2) (8)farmers

VVVVVVV (any correct answer)

TOTAL: 75