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**081105T4SAR**

## **SUSTAINABLE AGRICULTURE FOR RURAL DEVELOPMENT LEVEL 5**

**AGR/OS/SARD/C.C/02/5**

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**Apply SARD Principles**

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**November/December 2025**

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## **TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)**

### **WRITTEN ASSESSMENT**

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**Time: 3 HOURS**

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### **INSTRUCTIONS TO CANDIDATE**

1. This paper consists of **TWO** sections: **A** and **B**.

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2. Answer **two** questions in section **A** and **ANY THREE (3)** questions in section **B**.

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3. Marks for each question are indicated in the brackets.

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4. Candidates are provided with a separate answer book

5. Do not write on the question paper.

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**This paper consists of THREE (3) printed pages**

**Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.**

## SECTION A (40 MARKS)

***Attempt ALL the questions in this section***

1. In the context of sustainable development, the Sustainable Development Goals (SDGs) provide a global framework for approaches to sustainable development outlined in the SDGs. (4 Marks)
2. Soil classification is essential for effective farm management. Outline FOUR factors used in classifying soils according to agro-ecological zones. (4 Marks)
3. Sustainable agriculture technologies help minimize environmental impact. Name FOUR examples of sustainable agriculture technologies suitable for a farm. (4 Marks)
4. Integrating farm enterprises can enhance productivity. State FOUR benefits of integrating crops and livestock in a farm system. (4 Marks)
5. Crop rotation is an example of sustainable agriculture technologies. List FOUR guidelines to consider when selecting crops for a rotation program. (4 Marks)
6. Managing external beneficial associations supports farm success. Mention FOUR types of external beneficial associates for a rural farm. (4 Marks)
7. Farming resources must be conserved for long-term viability. State FOUR farming resources that require careful management on a sustainable farm. (4 Marks)
8. Waste management is crucial under EMCA policies. Outline FOUR strategies for managing agricultural waste sustainably. (4 Marks)
9. Crop classification helps farmers and scientists understand plant relationships and optimize agricultural practices. Name FOUR crop families. (4 Marks)
10. The Sustainability Framework emphasizes holistic approaches. State FOUR pillars of sustainable agriculture. (4 Marks)

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## SECTION B (60 MARKS)

**Attempt Any THREE Questions in This Section**

11.

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a. **Understanding soil fertility** is vital for sustainable crop production. Describe FIVE steps in the process of soil sampling and analysis. (10 Marks)

b. Sustainable agriculture technologies adapt to emerging needs like climate change.

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Discuss FIVE ways to implement and maintain these technologies on a farm.

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(10 Marks)

12.

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a. Farmers can make their farms stronger and more reliable by combining different farm enterprises (such as crops, livestock, and fish). Discuss FIVE ways a farmer can identify and successfully combine these enterprises. (10 Marks)

b. Crop rotation calendars are tools for soil health. Explain FIVE benefits of formulating and practicing a crop rotation program seasonally. (10 Marks)

13.

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a. **Engaging external beneficial associations** enhances farm innovation and sustainability. Describe FIVE strategies for effectively planning and evaluating partnerships with external beneficial associates. (10 Marks)

b. **Rural development relies on resource conservation.** In FIVE ways to source, utilize, and conserve farming resources under EMCA policies (10 Marks)

14.

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a. **Seasonal rotation** boosts soil health and farm resilience. Discuss FIVE ways on how alternating crops seasonally contribute to soil health and farm resilience. (10 Marks)

b. Smallholder farms benefit from ICT in resource management. Describe FIVE roles of ICT in enhancing sustainable practices. (10 Marks)

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