

**LEVEL 5**

**Demonstrate Environmental Literacy**

**July /Aug 2023**



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

**WRITTEN ASSESSMENT**

**Time: 3 hours**

**INSTRUCTIONS TO CANDIDATE**

1. This paper consists of THREE sections: A, B & C.
2. Marks for each question are indicated in brackets ().
3. You are provided with a separate answer booklet.
4. Do not write on the question paper.

**This paper consists of 7 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: (20 MARKS)**

*Answer ALL questions, each question is 1 mark*

1. Select a major greenhouse gas according to the Kyoto protocol
  - A. Carbon monoxide
  - B. Carbon dioxide
  - C. Ammonia
  - D. Argon
  
2. Identify the principal Act that guides environmental management in Kenya
  - A. Water Act
  - B. County government by-laws
  - C. Environment Management Co-ordination Act, 1999
  - D. Air quality regulations 2014
  
3. Select a hazard that qualifies to be classified as a chemical hazard
  - A. Acids
  - B. Vibration
  - C. Noise
  - D. Radiation
  
4. Identify a resource that is present and has been surveyed, but its usage is limited due to lack of technology
  - A. Stock resource
  - B. Reserve resource
  - C. Actual resource
  - D. Limited resource
  
5. How do humans get exposed to pesticide residues?
  - A. Birds and insects
  - B. Human food chain
  - C. Animals only
  - D. Plants only

6. Hazardous waste can best be disposed by which method?
- A. Incineration
  - B. Burying
  - C. Ocean dumping
  - D. Composting
7. Which of the following is a major challenge of waste management in Kenya?
- A. Lack of disposal sites
  - B. Lack of awareness
  - C. Lack of finance
  - D. Weak policies
8. Choose the correct Personal Protective Equipment (PPE) suitable for head protection
- A. Caps
  - B. Helmet
  - C. Mask
  - D. Goggles
9. Select the correct order of the 3R's in waste management
- A. Reduce, Recycle and Reuse
  - B. Reuse, Recycle and Reduce
  - C. Recycle, Reuse Reduce
  - D. Reduce, Reuse and Recycle
10. How can natural resources be sustainably conserved?
- A. Allow illegal mining
  - B. Give resources time to get renewed
  - C. Resource substitution
  - D. Allow industries to demolish forests

11. Among the following institutions, which one should be controlled for excessive noise and vibrations?
- A. Schools and colleges
  - B. Ambulance
  - C. Hospitals
  - D. PSV vehicles
12. Identify a physical water quality parameter
- A. Turbidity
  - B. Amount of phosphates
  - C. Amount of Biological Oxygen Demand
  - D. Amount of nitrogen
13. Select a characteristic of renewable energy that can be considered as a major limitation
- A. High pollution
  - B. Available only in few places
  - C. High running cost
  - D. Unreliable supply
14. Among the following human activities, identify one that significantly contributes to natural forest degradation
- A. Wildfire
  - B. Tree logging
  - C. Cultivation
  - D. Agroforestry
15. How can old car tires be disposed of effectively?
- A. Incineration
  - B. Reusing
  - C. Recycling
  - D. Dumping

16. Global warming results from various human activities. Select an activity that is a major contributor.
- A. Irrigation
  - B. Industrial processes
  - C. Livestock farming
  - D. Rice cultivation
17. What concept constitutes the waste minimization technique
- A. Resource maximization
  - B. 3Rs principles
  - C. Mono-cropping
  - D. Replenish
18. Select a major challenge that is common in implementation of environmental programs
- A. Weak policies
  - B. Resource mobilization
  - C. Lack of expertise
  - D. Monitoring
19. Identify the main reason for stakeholder feedback in implementing a nature project
- A. Enhance project sustainability
  - B. Evaluate progress
  - C. Mobilize resources
  - D. Solicit local support
20. Monitoring is an important phase of a project cycle. At what stage is it necessary?
- A. At the beginning of the program
  - B. Throughout the life of the program
  - C. At the midpoint of the program
  - D. At the end of the program

## SECTION B: (40 MARKS)

*Answer All questions in this section*

21. Monitoring environmental hazards is critical in a workplace. Highlight its FOUR purposes. (4 Marks)
22. Waste dumping is becoming a common challenge in urban centers. State FOUR benefits of minimizing wastes. (4 Marks)
23. One of the ways of storing hazardous waste is by use of containers that must meet certain standards State FOUR aspects considered when choosing a suitable storage container for environmentally hazardous materials. (4 Marks)
24. Outline FOUR qualities of a natural resource to be classified as renewable. (4 Marks)
25. State FOUR benefits of adopting circular economy in a manufacturing industry. (4 Marks)
26. There has been complains from environmentalists on lifting the ban on logging in Kenya. Identify FOUR effects that are expected in the long term after lifting the ban. (4 Marks)
27. Soil is an important resource in the agricultural sector. Outline FOUR human activities that cause soil degradation. (4 Marks)
28. There are various tools that are used in environmental monitoring. List FOUR tools that are necessary when collecting environmental data. (4 Marks)
29. Hazards can be classified as mechanical, chemical and biological. Enumerate FOUR examples of biological hazards. (4 Marks)
30. State FOUR environmental conventions that address global warming. (4 Marks)

**SECTION C: (40 MARKS)**

*Answer ANY TWO questions in this section*

31. Agriculture is the backbone of Kenya's economy, but in the recent years global warming has adversely affected the sector.
- a) Explain FIVE effects of climate change on Agriculture (10 Marks)
  - b) Suggest FIVE mitigation measures addressing climate change effects in (a) above (10 Marks)
32. There has been a community complaint about pollution of a local river by discharge of sugar factory effluents. The contaminated water has negatively affected the health of the residents. Explain how the community will involve NEMA in mitigating the effects of pollution. (20 Marks)
33. Explain FIVE roles of natural forests in:
- a) Water conservation (10 marks)
  - b) Air purification (10 Marks)

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