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Name: _____
 2528/302
 2922/302
 ENVIRONMENTAL WASTE MANAGEMENT,
 E.I.A AND ENVIRONMENTAL LAW
 Oct/Nov, 2013
 Time: 3 hours

Index No: _____
 Candidate's Signature: _____
 Date: _____



THE KENYA NATIONAL EXAMINATIONS COUNCIL
 DIPLOMA IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY
 MODULE III

ENVIRONMENTAL WASTE MANAGEMENT, E.I.A
 AND ENVIRONMENTAL LAW

3 hours

INSTRUCTIONS TO CANDIDATES

Write your name and index number in the spaces provided above.
 Sign and write the date of the examination in the spaces provided above.
 You should have a non-programmable scientific calculator for this examination.
 This paper consists of **TWO** sections: **A** and **B**.
 Answer **ALL** questions in section **A** and any **THREE** questions from section **B** in the spaces provided.
 Each question in section **A** carries 4 marks while each question in section **B** carries 20 marks.
 Candidates should answer the questions in English.

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SECTION A

For Examiner's Use Only

Question	1	2	3	4	5	6	7	8	9	10	TOTAL SCORE
Candidate's Score											

SECTION B

Question	11	12	13	14	15	TOTAL SCORE
Candidate's Score						
GRAND TOTAL						

This paper consists of 16 printed pages.

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

SECTION A (70 marks)

Answer ALL questions in this section in the space provided.

State four characteristics of municipal solid waste.

(4 marks)

Explain two purposes of wastewater pretreatment before the primary treatment.

(4 marks)

3. State the four steps in waste management.

(4 marks)



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4. Distinguish between incineration and pyrolysis.

(4 marks)

5. Distinguish between environmental self audit and environmental control audit.

(4 marks)

6. State four benefits of conducting effective environmental assessment.

(4 marks)



7. Explain any two possible decisions by NEMA on a submitted Environmental Impact Assessment (EIA) study report.

(4 marks)

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8. Identify any four characteristics of solid waste. (4 marks)

9. State any four supervisory roles of course in administration of environmental law. (4 marks)

10. Distinguish between prescriptive, prohibitive and facilitative participation principles in environmental law. (4 marks)

SECTION B (60 marks)

Answer any **THREE** questions from this section in the spaces provided after question 15.

11. (a) Explain four main environmental protection handbooks carried out by the local authorities. (8 marks)

(b) Explain any four requirements that the National Environmental Management Authority (NEMA) considers before issuing a license. (8 marks)

(c) Distinguish between Agreements and Conventions. (4 marks)

12. (a) Describe the following stages of a nuclear fuel cycle: (4 marks)

(i) milling; (3 marks)

(ii) fuel reprocessing; (5 marks)

(b) Explain the disposal approaches of the following radioactive waste: (4 marks)

(i) low-level waste; (3 marks)

(ii) intermediate waste; (3 marks)

(iii) high-level waste. (3 marks)

13. (a) Describe the primary and secondary wastewater treatment processes. (12 marks)

(b) List four importance of ozone in wastewater treatment process. (4 marks)

(c) State the four factors NEMA considers before issuing effluent discharge license. (4 marks)

14. Table 1 shows data on solid waste handling in a town in Kenya.

Table 1

	Mass (000s)	Volume (m ³)
Before compacting	210	1200
After compacting	210	700

(a) Determine the densities of the solid waste: (2 marks)

(i) before compacting; (2 marks)

(ii) after compacting. (4 marks)

(b) State four advantages of compacting solid municipal wastes. (4 marks)

- (e) A law is to be formulated for control of air pollution. Explain any six aspects to be included in the formulated law. (12 marks)
- 15. (a) Outline the steps of an Environmental Impact Assessment (EIA) study. (6 marks)
- (b) Explain any five economic activities that require Environmental Impact Assessment guidelines in Kenya. (10 marks)
- (c) State any four methods for consultation and public participation (C/P/P) in EIA process. (4 marks)

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