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Index No. _____

2538/202 ENVIRONMENTAL WASTE MANAGEMENT, E.I.A AND ENVIRONMENTAL LAW

Candidate's Signature _____

November 2012

Date _____

Time: 3 hours



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.
Write the date of the examination and sign 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.
Maximum marks for each part of a question are indicated.

For Examiner's Use Only

SECTION A											
Question	1	2	3	4	5	6	7	8	9	10	TOTAL
Marks											

SECTION B						
Question	11	12	13	14	15	TOTAL
Marks						
						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.

Chief Paper Review Administrator/Coordinator

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SECTION A (40 marks)

Answer ALL questions from this section.

1. Define the following terms as used in waste management:

(a) waste:

(1 mark)

(b) disposal:

(2 marks)

2. List the four ways of managing risks:

(4 marks)

3. Explain the initial process of waste water treatment.

(4 marks)

4. Name the four approaches of managing waste.

(5 marks)

5. Distinguish between Environmental Impact Assessment (E.I.A) and Strategic Environmental Assessment (S.E.A). (4 marks)

6. Explain the following types of environmental monitoring:

(a) baseline monitoring:

(2 marks)

(b) impact monitoring:

(2 marks)

7. Identify the four risk assessment steps:

(4 marks)

8. Name any four sources of environmental law.

(4 marks)

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9. Explain the following functions of the National Environmental Management Authority (NEMA).

(a) land use.

(2 marks)

(b) research.

(2 marks)

10. List four principal functions of courts in administration of environmental law.

(4 marks)

SECTION B (60 marks)

Answer any THREE questions from this section in the spaces provided after question 11.

11. (a) Describe the Kyoto Protocol as a tool that is used in legislation controls of atmospheric pollution. (8 marks)

(b) State any four criteria for establishing measurement of air quality in Kenya. (4 marks)

(c) Explain any four functions of NEMA in the legislation of noise pollution. (8 marks)

12. (a) Name any four characteristics of hazardous waste. (4 marks)

(b) Explain any six considerations in choice of a hazardous waste management facility. (12 marks)

(c) Explain any two hazardous waste disposal regulations in Kenya. (4 marks)

13. (a) Explain any two factors that determine the amount of waste generated from a processing facility. (4 marks)

(b) Identify any two objectives of:

(i) waste minimization;

(2 marks)

(ii) waste treatment.

(2 marks)

(c) Explain the importance of determining the following water quality aspects for human drinking:

(i) pH;

(2 marks)

(ii) dissolved oxygen;

(2 marks)

(iii) turbidity;

(2 marks)

(iv) odour.

(2 marks)

(d) Identify four environmental criminal offences. (4 marks)

14. (a) Describe the following methods of solid waste volume reduction:

(i) incineration;

(4 marks)

(ii) landfills.

(4 marks)

(b) Explain any four importance of waste management. (8 marks)

(c) Distinguish between criminal liability and civil liability. (4 marks)

15. (a) State any four objectives of Environmental Impact Assessment. (4 marks)

(b) Explain the activity undertaken in the following stages of Environmental Impact Assessment:

(i) screening;

(2 marks)

(ii) scoping.

(2 marks)

(c) Explain any three outcomes of a screening report. (6 marks)

(d) Explain the three objectives of implementing Environmental Impact Assessment in the context of international agreements. (6 marks)