

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

2528/302
 2922/302
 ENVIRONMENTAL WASTE
 MANAGEMENT, ENVIRONMENTAL
 IMPACT ASSESSMENT AND
 ENVIRONMENTAL LAW
 Oct/Nov. 2014
 Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
 DIPLOMA IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY
 ENVIRONMENTAL WASTE MANAGEMENT, ENVIRONMENTAL IMPACT
 ASSESSMENT AND ENVIRONMENTAL LAW
 MODULE III
 3 hours

INSTRUCTIONS TO CANDIDATES

Write your name and index number in the spaces provided above.
 Sign and write the date of 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 in this question paper.
 Each question in section A carries 4 marks, while each question in section B carries 20 marks.
 Candidates should answer the questions in English.



SECTION A

Question	1	2	3	4	5	6	7	8	9	10
Candidate's score										

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Total

SECTION B

Question	11	12	13	14	15	Total
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.

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Answer ALL the questions in this section in the space provided.

Name any four waste disposal methods.

(4 marks)

2. Identify any four factors that affect the cost of waste collection in an urban residential estate in Kenya.

(4 marks)

3. State four methods of solid waste volume reduction.

(4 marks)

4. Explain any four purposes of Environmental Impact Assessment (E.I.A) guidelines in Kenya. (4 marks)

5. Explain the Strategic Environmental Assessment (S.E.A) principle.

(4 marks)

6. Distinguish between hazard and risk during storage of domestic waste.

(4 marks)

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Explain any two offences that can be committed when transporting waste in Kenya. (4 marks)

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8. State the four roles of courts in the administration and enforcement of environmental law in Kenya. (4 marks)



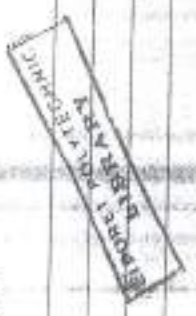
9. Name any four sources of international environmental law in Kenya. (4 marks)

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10. Identify ^{two} systems of waste regulations in Kenya. (4 marks)

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SECTION B (60 marks)

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

11. (a) Outline the provisions of the Water Act 2002 of Kenya. (6 marks)

(b) Describe the role of flower companies and governmental organizations in the regulation of pollution in Kenya. (10 marks)

(c) The late professor Wangari Maathai went to court seeking to stop the proposed construction of a multi-story building at Uhuru Park in 1989. The case was dismissed on the grounds that she had no legal standing to be in court on behalf of the public. Explain the reason for losing the case. (4 marks)

12. A mining company has not been able to start extracting the mineral resource at the coast in Kenya because of environmental concerns by the local people. This is due to matters of violation of the Environmental Management Coordination Act (EMCA) 1999 of Kenya. If the local people (constituents) went to the High Court of Kenya for hearing

(a) list the jurisdiction by the High Court of Kenya for the entitlement; (3 marks)

(b) name the principles that will guide the High Court of Kenya in determining any such rights before it; (7 marks)

(c) explain such orders that the High Court of Kenya may make in exercise of its inherent powers. (10 marks)

13. A waste management company is involved in the collection of recyclable materials in a town in Kenya. Explain any two benefits the company will experience in collecting the following recyclable materials:

- (a) paper; (4 marks)
- (b) plastic; (4 marks)
- (c) metals; (4 marks)
- (d) glass; (4 marks)
- (e) batteries; (4 marks)

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(i) Explain the considerations taken by a County government in relocating a solid waste management facility from near an urban residential estate to a site near a river bank. (5 marks)

(ii) State four reasons why a County government would prefer co-site waste management option to off-site management option. (4 marks)

(b) Explain the arrangements that a County government would consider when managing solid waste to an off-site management location. (11 marks)

15. Biological growth process configurations as shown in Figure 1 have been used to accomplish biological phosphorus removal in waste water treatment.

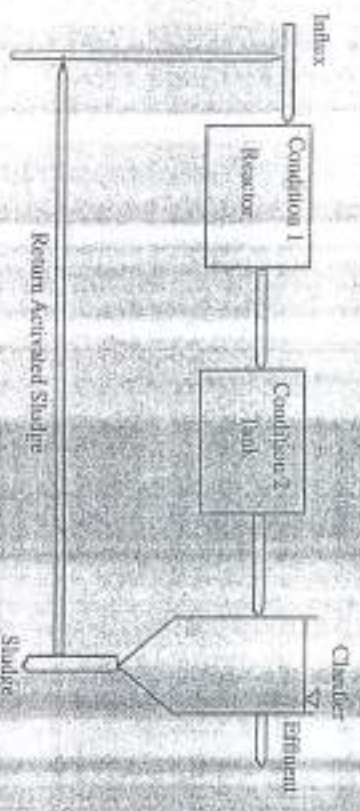


Figure 1

(a) Identify the environmental conditions 1 and 2. (2 marks)

(b) Explain the process of formulating waste sludge for use as fertilizer under environmental conditions 1 and 2. (10 marks)

(c) State eight advantages of biological phosphorus removal in waste water treatment. (8 marks)

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II

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