



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE PUBLIC**  
**HEALTH / COMMUNITY HEALTH AND DEVELOPMENT**  
**2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER 2023/2024 ACADEMIC YEAR**  
**MAIN CAMPUS**

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**COURSE CODE: HCB 1202**

**COURSE TITLE: DRAINAGE AND CONSERVANCY**

**EXAM VENUE: STREAM: (BSc. Env. Hlth)**

**DATE: EXAM SESSION:**

**TIME: 2.00 HOURS**

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**Instructions:**

- 1. Answer all the questions in Section A and ANY other 2 questions in Section B.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

### **Section A 30**

1. Describe THREE signs and symptoms of cholera that will enable you to identify the disease. (3 marks)
2. Explain THREE environmental hazards that are contributed to because of improper disposal of human excreta. (3 marks)
3. Explain THREE circumstances where the concept of open field defecation can be accepted for use. (3 marks)
4. Explain briefly why it is important to neatly pile the earth that was removed from digging the hole for shallow trench latrine. (3 marks)
5. State the three advantages of using deep trench latrines in our communities at any given time. (3 marks)
6. Explain THREE situations where the use of borehole latrines are most appropriate and recommended. (3 marks)
7. State the three major contributing risk factors to environmental disease burden in the continent that are traditional environmental health hazards. (3 marks)
8. State the emergence of Modern Environmental Health Hazards and its content. (3 marks)
9. Explain briefly the way Helminth infections are transmitted from infected person to another person. (3 marks)
10. State three ways by which soil transmitted helminths impair the nutritional status of the people they infect in multiple ways. (3 marks)

### **Section B 40 Marks**

1. Assume that you are on your final field attachment in your rural home county and a client comes to the office and applied for inspection and guidance for her residential house under construction and you found an omission and you advised her to include a septic tank in her plan and she requested you to design and draw and supervise for her that important aspect of the building on private consultancy engagement terms which you accepted. Describe clearly with the aid of a cross-sectional diagram of a double-chamber septic tank that you recommended for her house, focusing on the functioning and maintenance of this facility.
2. Imagine that you have graduated with BSc. in Public Health from JOOUST and secured an internship in an eventful public health office with the National Government. An investor comes to the office for public health consultation and guidance concerning methods of excreta disposal for their establishment and you recommended for them a chemical closet (toilet) because of the nature of their business. Explain clearly why you recommended for them a chemical closet (toilet) to be the most appropriate, focusing on construction, functions/ applications, advantages and disadvantages (20 Marks).
3. Assume that you went back to your rural home after attaining some level of training and you felt that you needed to advise your parents so that you come up with a new VIP latrine based on the benefits associated with it since the one that has been serving your family in the past is getting filled up very soon. Describe clearly the way you will convince your parents to accept to spend more resources to construct this type of latrine as opposed to others, focusing on its construction, function and unique parts of it and advantages and disadvantages. These should be supported by a well-labeled diagram (20 Marks).