

MAIN EXAMINATION

BSC HEALTH SYSTEM MANAGEMENT Y2S2

NNH 3252: PRINCIPLES OF ENVIRONMENTAL HEALTH

TIME 2 HOURS

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Analyze five levels of ecological organization that explain the interrelationships of micro and macro organisms in the environment (5 marks)
- b) State the main role of National Environmental Management Authority (NEMA) (1 marks)
- c) State the three interacting factors of disease causation in the epidemiologic triad (3 marks)
- d) Describe three classifications of waste stabilization ponds used in treatment of community waste water (6 marks)
- e) Trench latrines are constructed usually in emergencies such as natural disasters and wars. Provide the rationale of recommending trench latrine in emergency situation as a viable fecal waste disposal technology (3 marks)
- f) Discuss the use of biochemical oxygen demand and chemical oxygen demand as measures of waste water standards (4 marks)
- g) Explain why foods with low water activity would be ideal for a community outreach feeding program (2 marks)
- h) After eating lunch at the students' center, a group of students complained of nausea, vomiting, diarrhea but no fever. State three likely causes leading to these symptoms (3 marks)
- i) Describe three circumstances that would call for water testing by a water service providers (3 marks)

QUESTION TWO (20 MARKS)

- i. The county health management committee has proposed construction of an ultramodern laboratory within the county. National environmental management authority requires an environmental impact assessment certificate is issued before project commencement.
- ii. Explain details of the four basic environmental impact assessment principles that should be adhered to in this process (8 marks)
- iii. After the certificate is issued and project starts, state four principles that will guide project implementation (4 marks)
- iv. Discuss the importance of environmental impact assessment in Health Systems Strengthening (8 marks)

QUESTION THREE (20 MARKS)

- i. You are a member of a health safety committee in a level 4 hospital with high production of biomedical waste. Recommendation of the committee is that waste segregation using color coding for biomedical waste management must be implemented and followed by all healthcare staff. Elaborate this recommendation to the healthcare staff mandated to implement the recommendation (10 marks)

- ii. Describe at least three treatment and disposal technologies for health-care facility waste (6 marks)
- iii. State four health concerns associated with hazardous waste in the community (4 marks)

QUESTION FOUR (20 MARKS)

Quarterly reports of an urban health facility indicate that cases of intestinal worms and diarrheal cases have been on the rise.

- i. Explain the reasons that could be attributed to the rising cases of these water associated diseases (6 marks)
- ii. As health manager, what interventions can you recommend to control and manage the spread of these diseases in the community (6 marks)
- iii. With help of a diagram, illustrate transmission cycle soil-transmitted helminthes and indicate point of interventions to break the transmission cycle (8 marks)