

# JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF HEALTH SCIENCES

## UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF PUBLI HEALTH

# $1^{ST}$ YEAR $2^{ND}$ SEMESTER 2018/2019 ACADEMIC YEAR KISII CAMPUS-PART TIME

**COURSE CODE: HCD 3122** 

COURSE TITLE: WASTE MANAGEMENT

EXAM VENUE: STREAM: (BSC )

DATE: EXAM SESSION:

TIME: 2 HOURS

### **Instructions:**

- 1. Answer Question ONE (COMPULSORY) and ANY other 2 questions
- 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.

#### **QUESTION ONE**

- 1 .a Briefly explain guidelines involved in disposal of corpse and dead animals -3mks
- b Explain the design of pit latrines as a means of excreta disposal in rural areas -3mks
- c. Explain briefly any three heavy metals and their effects found in industrial liquid waste -3mks
- d .Explain the impacts of solid wastes -3mks
- e. What's API separator? .Explain its working mechanism -3mks
- f. Explain percolating filters -3mks
- g. Explain brine treatment method. -3mks
- h. Explain the following terms -3mks
- (1). Landfilling
- (ii). Composting
- (iii). Burying

I explain lagoon as a method involved in secondary treatment of waste.- 3mks

j. Explain the waste stabilization ponds -3mks

#### PART B.

### ANSWER ANY TWO QUESTIONS (40mks)

- 1. Discuss in detail the public health transmissions, design and construction of excreta disposal methods -20mks
- 2. Discuss the industrial waste water treatment -20mks
- 3. Discuss mechanism of activated sludge and its disposal methods -20 mks
- 4. Discuss in detail processes involved in sewage treatment -20mks