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**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATIONS 2019/2020**  
**EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN PUBLIC**  
**HEALTH AND INTERNATIONAL HEALTH**

**TPH 3115: ENVIRONMENTAL, OCCUPATIONAL AND INDUSTRIAL HEALTH**

**DATE: FEBRUARY, 2020**

**TIME: 3 HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS**

**QUESTION ONE**

Discuss the effects of climate change on infectious disease pathogens (25 marks)

**QUESTION TWO**

According to a report by a local newspaper in Kula Mawe County; households drain their raw sewer into disused treatment ponds, where land grabbers have dug trenches to direct the faecal matter into rivers. Moreover, most tenants have dug shallow pits, which are used as latrines. Once filled up, they use street boys to empty faecal matter into nearby streams at night. Discuss the environmental health effects that could be associated with what is happening in Kula Mawe County (25 marks)

**QUESTION THREE**

Discuss the four "Rs" which are followed in solid waste management (25 marks)

**QUESTION FOUR**

Discuss the workers' rights as per the OSHA 2007 guidelines (25 marks)

**QUESTION FIVE**

You consult a construction company which has a proud history of low accident and lost time injury rates. With a recent boom in construction, the company has grown rapidly from 200 to 300 employees and has recruited a number of casuals. The Health and Safety manager approaches you with a concern about an increase in minor accidents over the last 6 months. From her visit to the sites she identified that the "safety culture" is not strong at two of the sites. She identified that some workers appeared not to be wearing PPE and that the worksite was messy. She outlines to you a number of pressures on the company, and that one of these is the time pressure associated with keeping to schedule. Discuss any six (6) factors from the description above that might contribute to the increase in accidents at the two construction sites

**QUESTION SIX**

You are employed by an occupational health consultancy firm to design a plan to manage the health aspects of the **construction phase** of a pipeline project. In this project a 500-kilometre large bore pipeline will be constructed from medium carbon steel pipeline

segments. The route will traverse remote countryside and construction is expected to last 18 months. The construction and support workforce will comprise about 500 ex-patriate contractors and approximately 1000 temporary employees who will be recruited from various towns and villages along the pipeline route. Write notes on the broad range of health issues that will need to be considered in your plan (25 marks).