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**University Examinations 2015/2016**

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY HEALTH DEVELOPMENT

**HPC 3304: COMMUNITY WATER SUPPLIES**

 **DATE: NOVEMBER 2015 TIME: 2 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Define water borne disease and give two examples. (3 Marks)
2. Explain what a water washed disease is. Give two examples (3 Marks)
3. Define a water based disease. Give two examples. (3 Marks)
4. Explain what a water related disease is. Give two examples. (3 Marks)
5. Explain community led total sanitation. (CLTs) (5 Marks)
6. Explain the meaning of gender. (5 Marks)
7. Describe the main sources of water. Give one example. (3 Marks)
8. Explain how a water treatment plant works. (5 Marks)

**QUESTION TWO (20 MARKS)**

You are a project manager in Beetu Plains region in Kenya. The area has very high potential for shallow wells. Communities in the region have been relying on shallow wells water for their domestic uses for over 30 years. Most of the wells whose depths range from 3 M to 7 metres are open, not lined and some sites very close to dwelling houses. A few wells are covered with wooden planks tied together by use of sisal ropes. People draw water from the wells using plastic containers tied to sisal ropes. A rapid assessment survey has revealed shallow well water as the most preferred. Culturally, women, young girls and boys are responsible for fetching water. Communities have experienced incidences of wells collapsing and sometimes flooding especially during heavy rains. Majority of the households lack pit latrines and indiscriminate defaceation is common in the area. The few ordinary latrines are located close to the wells. Cases of diarrhea, malaria and intestinal worms are quite common in the region. There is a lot of clean river sand, hardcore and even timber in the region. The named local materials are also used in constructing living houses. Communities in this region are well known for their good organization and active participation in other projects.

1. State and explain at least five ways through which the shallow wells in this area may be contaminated. (10 Marks)
2. Discuss ways of preventing contamination of shallow wells in the region. (10 Marks)

**QUESTION THREE (20 MARKS)**

Discuss the importance of water treatment. (20 Marks)

**QUESTION FOUR (20 MARKS)**

Discuss the factors affecting water usage in a community. (20 Marks)