**DIPLOMA IN PUPLIC HEALTH FINAL EXAM**

1. List the types of people who are most vulnerable to waterborne diseases. Explain

* The diseases associated with water can be classified as waterborne, water-washed, water-based and water-related. The causative agents of disease in unsafe water include bacteria, viruses, protozoa and helminths (worms). The main illnesses in Ethiopia include diarrheal diseases and malaria.
* waterborne Diseases. Waterborne diseases are caused by drinking contaminated or dirty water. Contaminated water can cause many types of diarrheal diseases, including Cholera, and other serious illnesses such as Guinea worm disease, Typhoid, and Dysentery.

1. your answers why and how to overcome the diseases

* Maintain a Healthy Weight.
* Exercise Regularly.
* Don't Smoke.
* Eat a Healthy Diet.
* Drink Alcohol Only in Moderation, If at All.
* Protect Yourself from the Sun.
* Protect Yourself from Sexually Transmitted Infections.
* Get Screening Tests

1. Suppose that inhabitants of a village obtain water from a spring. What advice would you give to the users about the prevention of contaminants entering the spring?
2. Every public drinking water source should be protected from possible contamination. In this study session, you will learn about different sources of water, the basic techniques of developing small-scale drinking water schemes (i.e. springs, hand-dug wells, rainwater harvesting and surface water). You will also learn how to identify water sources that need protection and how they can be protected from potential contaminants through community mobilisation, regular inspection, proper maintenance, hygiene promotion and periodic treatment of water to prevent waterborne diseases from affecting the community
3. The following are pollution sources. Give two specific pollutants for each source.
4. A residential area: Water pollution is any contamination of water with substances that are detrimental to human, plant or animal health.
5. A metal plating plant: floor mounted Console Unit Comprising of multi stage plating set up like cleaning, Nickel / Copper (under coat) Silver, Gold, Rhodium (in multi-stations) and Rinsing, fitted with all the accessories including rectifier and process-wise filter unit. Bath 2 litters onwards as desired

* Agricultural activities: arable farming grows crops, eg wheat and barley.
* pastoral farming is raising animals, eg cows and sheep.
* mixed farming is both arable and pastoral

1. An uncontrolled landfill site:  non-engineered dump is probably the most common land disposal method in developing countries. Untreated waste discharged into an uncontrolled, non-engineered open dump does not protect the local environment and should not be used. Discarding of untreated waste pharmaceuticals into such a site is not recommended except as a last resort. They should preferably be discharged after immobilization by encapsulation or inertization. As a last resort, where it is not possible to immobilize the waste pharmaceuticals, then the untreated wastes must be covered rapidly with large quantities of municipal waste to prevent scavenging. It should be noted that discarding in open, uncontrolled dumps with insufficient isolation from the aquifer or other watercourses can lead to pollution, with the risk of drinking water contamination in the worst cases.
2. Urban surface water run-off; Surface runoff (also known as overland flow) is the flow of water that occurs when excess storm water, meltwater, or other sources flows over the Earth's surface. ... It is the primary agent in soil erosion by water
3. Explain 5 reasons why emergencies can put people at greater risk of waterborne disease? Waterborne diseases are caused by drinking contaminated or dirty water. Contaminated water can cause many types of diarrheal diseases, including Cholera, and other serious illnesses such as Guinea worm disease, Typhoid, and Dysentery. Water related diseases cause 3.4 million deaths each year. also Waterborne diseases are conditions caused by pathogenic micro-organisms that are transmitted in water. Disease can be spread while bathing, washing or drinking water, or by eating food exposed to contaminated water. While diarrhea and vomiting are the most commonly reported symptoms of waterborne illness, other symptoms can include skin, ear, respiratory, or eye problem.
4. In your own words, what is your understanding of public health and what are its key elements? public health has been defined as "the science and art of preventing disease, prolonging life and promoting human health through organized efforts and informed choices of society, organizations, public and private, communities and individuals Analyzing the health of a population and the threats it faces is the basis for public health. The public can be as small as a handful of people or as large as a village or an entire city; in the case of a pandemic it may encompass several continents. The concept of health takes into account physical, psychological and social well-being. As such, according to the World Health Organization, it is not merely the absence of disease or infirmity
5. Discuss how environmental health and sanitation affect the nutritional status of the vulnerable groups? The vulnerability factors include socioeconomic status, health status, nutrition status, geographic proximity to sources of exposure, and various lifestyle choices. ... Refugees may be more vulnerable due to the lack of access to safe water and poor sanitation.
6. Paul, a resident in the outskirts of your town, consults you about building a latrine in the compound of his house. He is an open-minded man who is keen to improve life for his family. He has a wife and three young children, and his elderly mother also lives with them. He doesn’t have a tap in his house and gets water from a nearby well. The area has heavy soil and the rock below is impermeable.
7. Which types of latrine are possible choices for him? Pit latrine with slab. Pit latrines are the simplest form of dry latrine.
8. Which types of latrine would you recommend, and why? it latrines are the simplest form of dry latrine. They consist of a pit dug in the ground and a cover slab or floor above the hole (Figure 20.1). Pit latrines must have a cleanable cover slab in order to be considered as improved sanitation systems. The excreta (both faces and urine) drop through the hole to enter the dry pit. Pit latrines should be constructed on a slight mound so they are higher than the surrounding ground and water at the surface will flow away from the hole. They should also have a lid that can be placed over the hole to reduce problems with flies and odours. They may have a squat pan or a raised footrest to make using the latrine more convenient. The pit is often lined but the bottom remains open, allowing the liquid to drain into the soil and leaving the solids behind
9. What other advice would you give him about the location, design and construction of the latrine? it latrines must be properly maintained to function properly. You should advise families to keep the squatting or standing surface clean and dry. This will help to prevent pathogen/disease transmission and limit odours.

8. Explain five ways in which urbanization creates challenges for effective sanitation and solid waste management. The challenges of solid waste management include inadequate infrastructure, paucity of .... wastes disposal methods, how urbanization.

9. How do good sanitation and waste management practices bring a positive effect to urban inhabitants? Give examples for effects on: here are very harmful effects of throwing garbage anywhere. Some of the effects are: It causes land pollution, which affects human health and causes serious health diseases. Such as- several types of cancer.

1. Health: Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity
2. education Environmental education refers to organized efforts to teach how natural environments .... Climate Change Education aims in enhancing the public's ... first appeared in The Journal of Environmental Education
3. economic conditions
4. the environment

10. List and briefly describe the measures by which the success or otherwise of a public–private partnership providing water supply services can be assessed? n cities across the world it has usually been the case that a municipal (public) authority takes responsibility for urban water supply. There are now variations in this service provision. In many countries, private businesses (or operators) have joined in partnership with public authorities to provide water in arrangements called public–private partnerships. This study session explores the concept of public–private partnerships and their application in urban water supply.

NB: ALL QUESTIONS CARRY 10 MARKS

BEST OF LUCK!!