

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Water Supply, Refugee Health and Sanitation in Emergency

Semester: 3

Program: M.Tech HSE- DM

Course Code: HSFS 8010

Time 03 hrs.

Max. Marks: 100

Instructions: All questions are compulsory

SECTION A

S. No.	Question	Marks	CO
Q 1	Distinguish between the following terms: a) Epidemic and Endemic b) Mortality and Morbidity	4	CO2
Q 2	List and explain four environmental hazards that Uttarakhand could be victim of.	4	CO1
Q 3	Who are termed as “internally displaced persons”? What are the guidelines that guarantee their rights?	4	CO1
Q 4	Which water quality parameters are of special concern in supplying water during emergencies and why?	4	CO1
Q 5	Is wastewater different from storm water? Justify your answer. What are the merits and demerits of combining both for treatment?	4	CO2

SECTION B

Q 6	Describe the role of early warning systems in disaster management and describe which systems are used for a) flood and b) cyclone events.	10	CO1
Q 7	Mention the key health indicators during emergency and briefly describe each.	10	CO2
Q 8	Why are women and children given more emphasis during hygiene promotion? Write detailed notes on hygiene promotion during emergencies, highlighting its main principles.	10	CO2
Q 9	Elaborate the hazards posed by improper and ineffective excreta disposal in refugee camps? Describe two techniques for onsite excreta disposal.	10	CO3
<p>OR</p> <p>Differentiate between communicable and non-communicable diseases? Giving two examples of each, describe the precautions to be taken to prevent the spread of communicable diseases.</p>			

SECTION-C

Q 10	Safe water has to be ensured to a village hit by a cyclone. A well situated near the emergency camping site has a diameter of 7 m and water depth of 20 m. Estimate the amount of high strength calcium hypochlorite in kg that is to be added to the water in the well to ensure disinfection. Write notes on the procedure to be followed while cleaning and disinfecting wells? Write detailed notes on the preliminary methods used for treatment of water supplies during emergencies.	20	CO3
Q 11	<p>A severe earthquake struck a densely populated town in India resulting in mass fatality. Give the step by step procedure to be followed in handling and disposing the dead bodies keeping in mind the cultural practices of the country.</p> <p style="text-align: center;">OR</p> <p>How do non-governmental actors help in enforcing human rights and humanitarian law? Describe an instance each when non-governmental actors have worked a) in tandem with and b) in conflict with governmental organization to ensure the upholding of human rights</p>	20	CO4