

Roll No _____

**UNIVERSITY OF PETROLEUM & ENERGY STUDIES
DEHRADUN**

End Semester Examination – April 2017

Program/course: B.Tech/ FSE

Subject: Disaster management

Code :FSEG 432

No. of page/s:

Semester – 8

Max. Marks : 100

Duration : 3 Hrs

Section A - Define the following

(10 x 2= 20 Marks)

1. Contingency plan
2. Cyclone
3. Storm surge
4. Talus
5. Emergency liaison officer
6. Table top exercise
7. ECC
8. MHF
9. Threshold Quantity of chemical
10. Soil creep

Section B- Answer all Questions

(5*8 marks= 40 marks)

1. Spills Emergency during road transportation of hazardous chemicals has occurred. As A driver, How will you tackle the situation? How will you safely dispose the chemical.
2. Explain the disaster that occurs in arid and Semi-Arid region.
3. Explain the points mentioned in preparation of on-site and off-site emergency plan mentioned in manufacture, handling, import and storage of hazardous chemical rules.
4. Explain the storm hydrograph that leads to development of flooding.
5. Assuming that you are working as a Disaster management expert in an Oil and Gas industry. List out the probable emergency scenarios that can occur for the industry. Develop an emergency organizational chart considering explosion as an Emergency. Develop an Emergency management plan considering the various elements such as Emergency inventory, Mutual Aid scheme etc.

Section c- Answer all Questions

(2*20 marks= 40 marks)

6. Explain the various methods of cleaning Oil spillage in sea. Differentiate Persistent and Non Persistent Oil. Define Hydrophilic and lipophilic

7. A) What is meant by earthquake? Explain the types of seismic waves. How is earthquake epicenter located? How is earthquake measured? Draw a sketch of seismogram. (10 marks)

B) Explain the various classifications of earth movement or landslides. Many techniques are adopted throughout world to prevent landslides. Discuss those techniques. (10 marks)

OR

C) Explain various factors which lead to Flooding. Mention various structural and Nonstructural control measures to avoid flooding (10 marks)



UNIVERSITY WITH A PURPOSE



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Section A - Define the following

(10 x 2= 20 Marks)

1. NDRF
2. Crude mortality rate
3. Morbidity rate
4. Threshold Quantity of chemical
5. Soil creep
6. Contingency plan
7. Tornados
8. Storm surge
9. Talus
10. Bioremediation Accelerator

Section B- Answer all Questions

(5*8 marks= 40 marks)

1. Around 5000 families are living in a emergency settlement. Each family consists of 4 members. During the first week 5 died, 3 got infected by malaria, 6 got infected by Ebola. During second week No one died, 6 got infected by malaria, 5 got infected by Ebola and 3 got infected by SARS . During Third week, 3 died, 2 got infected by malaria, 1 got infected by Ebola. During the fourth week, 13 died, 2 got infected by malaria, 11 got infected by Ebola has been registered. Calculate the mortality rate, Crude Morbidity rate of above said information. State the level of emergency as per WHO Standards
2. Explain the storm hydrograph that leads to development of flooding.
3. Assuming that you are working as a Disaster management expert in an Oil and Gas industry. List out the probable emergency scenarios that can occur for the industry. Develop an emergency organizational chart considering explosion as an Emergency. Develop an Emergency management plan considering the various elements such as Emergency inventory, Mutual Aid scheme etc.
4. Spills Emergency during road transportation of hazardous chemicals has occurred. As A driver, How will you tackle the situation? How will you safely dispose the chemical.
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