

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, May 2020

Course: Global Disaster Scenario and Types of Natural Disaster	Semester: III
Program: M Tech. HSE-DM	Time 03 hrs.
Course Code: HSFS 8009	Max. Marks: 100

SECTION A

- 1. Each Question will carry 5 Marks**
- 2. Instruction: Complete the statement / Select the correct answer(s)**

S. No.	Question	CO
Q 1	Discuss the three landmark international agreements that India adopted in 2015.	CO2
Q2	Fill in the blanks with the correct answer. a. The _____ scale to measure earthquakes is a magnitude scale. (Celsius scale, Richter scale, Rankine scale, Mercalli scale) b. The _____ scale is an intensity scale. (Celsius scale, Richter scale, Rankine scale, Mercalli scale) c. The _____ wave is a body wave. (Shear wave, Love wave) d. The _____ wave is a surface wave. (Shear wave, Love wave) e. The _____ wave can pass through all states of matter. (P wave, S wave , R wave)	CO1
Q3	a. Downward movement of a surface is called _____. b. Movement of a mass of Earth along a definite path is called _____. c. The gradual downward movement of wet soil along the slopes under the influence of gravity is called _____. d. Extremely slow downward movement of dry surficial matter along a low-grade slope is called _____. e. Shaking of Earth’s surface is called as _____.	CO1
Q4	Mention any five classifications of natural disasters with one example of each.	CO2
Q5	Select all the correct statements a. Flattening of slopes is not a landslide mitigation strategy b. Floods rarely occur in the northwest river region of India. c. A weir and spillway perform the same function. d. If the discharge of a stream increases, its carrying capacity decreases. e. Floods can play a role in making the underlying soil more fertile.	CO2

Q6	A stream has been fitted with a weir to regulate flow and level. However, the discharge through the weir has to be increased. Illustrate how this can be done using the weir equation.	CO3
SECTION B		
1. Each question will carry 10 marks 2. Instruction: Write short / brief notes		
Q 7	With the Earthquake design philosophy in mind, explain how buildings can be prevented from damage due to ground shaking.	CO3
Q 8	What are the various other names by which cyclones are known as world over? Describe the mechanism of formation of a cyclone. OR Describe the structural measures that can be used to mitigate the effects of cyclones.	CO1
Q 9	Differentiate between: a) Flood plain and Flood way b) Precipitation and Runoff c) Fan Shaped and Fern Shaped catchment d) Seismograph and Seismogram e) P wave and R wave	CO3
Q 10	Write short notes on the institutional framework in India for disaster preparedness and mitigation.	CO1
Q 11	Assume that you are sunbathing at the Goa beach and your friend has gone boating. If you notice that the sea is beginning to recede back, what would you do and what would you suggest for your friend. If you are responsible for detection of tsunamis, mention the systems that you would choose to install for ensuring timely warning.	CO2
Section C		
1. Each Question carries 20 Marks. 2. Instruction: Write long answer.		
Q12a	Considering the topology and landscape of Bidholi, predict possible disasters that could strike Bidholi. Using the key principles of disaster management and the disaster management cycle suggest a disaster management plan in the event of any one of these disasters blocking all access from UPES for 2 weeks. (12 M)	CO4
Q12b	Prepare a flowchart of the Incident Command System in India. Differentiate between the Incidence Command System and the Incidence Management System? (8M)	