

**R13**

Code No: 115DX

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**B.Tech III Year I Semester Examinations, November - 2015**  
**DISASTER MANAGEMENT**  
(Common to CE, CSE, CEE)**Time: 3 hours****Max. Marks: 75**

**Note:** This question paper contains two parts A and B.  
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A (25 Marks)**

- 1.a) Give a list of environmental Hazards in order of their importance. [2]
- b) Describe briefly eco system based model of human ecology. [3]
- c) Classify the following hazards as either Endogenous or Exogenous Hazard. [2]  
i) Earthquake ii) thunderstorm iii) volcano.
- d) Distinguish between planetary and extra-planetary hazard giving examples. [3]
- e) What causes volcanoes? [2]
- f) What are the hazardous effects of the volcanoes? [3]
- g) What is an eye of a cyclone? What is the wind velocity in the eye? [2]
- h) Describe the mechanism of soil erosion. [3]
- i) What are the three stages of disaster management? [2]
- j) List the pre- disaster measures can be taken for landslides. [3]

**PART - B (50 Marks)**

- 2.a) Define environmental hazard.
- b) Describe the environmental stress with respect to clean fresh water in India.
- c) What ecological influences threaten availability of clean air in coastal India? [3+3+4]

**OR**

- 3.a) Describe how environmental health is related to human health.
- b) Describe the importance of marine ecosystem for Indian subcontinent.
- c) What is the regulatory management which takes care of marine ecosystem? [3+3+4]

- 4.a) Give a list of man induced hazards.
- b) What are the energy sources that induce such hazards?
- c) Taking the example of a landslide hazard indicate the role of man in either triggering or preventing the hazard turning into a disaster. [3+3+4]

**OR**

- 5.a) What are the effects of environmental hazard? Give at least three effects.
- b) What hazards can be considered as extra planetary-Discuss
- c) Has the world faced such hazards in the past? [4+3+3]

- 6.a) What is the instrument used to measure earthquake intensity and how does it work?
- b) What measures are taken to protect buildings against collapse during the earthquake?
- c) What is meant by epicenter of an earthquake and how is it determined? [4+3+3]

**OR**

- 7.a) What is a Tsunami?
- b) Under what various circumstances a Tsunami can occur?
- c) Which regions get affected during Tsunami? [3+3+4]

- 8.a) List the technological hazards.
- b) Taking the example of a chemical industry indicate the measures taken to avoid the threat of toxic chemicals polluting the atmosphere.
- c) In such cases indicate the role of training in mitigating the effects of pollution. [3+3+4]

**OR**

- 9.a) Compare the disasters fire flood and tsunami with respect to magnitude of disaster.
- b) Are these to be considered as disasters in their own right or should they be treated as secondary effects? Discuss.
- c) If they are considered as secondary effect, identify the likely primary cause or causes. [3+4+3]

- 10.a) List the activities considered for post disaster rehabilitation after an earthquake.
- b) Bring out the importance of reconstruction of damaged buildings and the problems associated with it to ensure the dictum "Build back better"
- c) What measures are taken to rehabilitate the population in a holistic way? Discuss. [3+4+3]

**OR**

- 11.a) Discuss the problems associated with sedimentation processes.
- b) What pre disaster measures can reduce the impact of sedimentation problem?
- c) Discuss how this aspect influences soil erosion and suggest corrective measures. [3+3+4]

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