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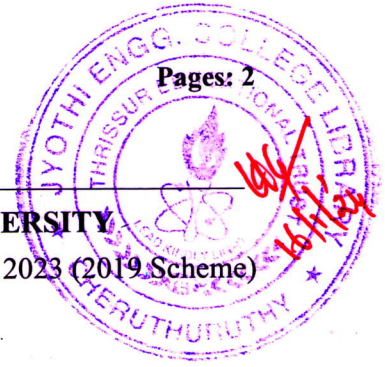
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Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S7 (R, S) / S5 (PT) (R, S) Examination December 2023 (2019 Scheme)



Course Code: CET445

Course Name: NATURAL DISASTERS AND MITIGATION

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

Marks

- 1 Compare the terms crisis and emergency. (3)
- 2 What is risk? How does vulnerability and exposure affect risk to a disaster? (3)
- 3 Explain the tectonic plate movements and geophysical phenomena that lead to the formation of volcanoes. (3)
- 4 What are the different types of floods? (3)
- 5 Explain the role of water in triggering landslides. (3)
- 6 Explain the concept of fire triangle with respect to forest fires. (3)
- 7 Differentiate disaster prevention and disaster mitigation. (3)
- 8 What are the advantages and limitations of SWOT analysis for disaster management? (3)
- 9 What is the importance of public hearing in EIA procedure? (3)
- 10 What is meant by a pre-disaster plan? Explain with an example. (3)

**PART B**

*Answer any one full question from each module, each carries 14 marks.*

**Module I**

- 11 a) Explain the term resilience. What are the characteristics of a resilient community? (6)
- b) Describe with an examples how human activities could trigger disaster. (8)

**OR**

- 12 a) Explain the term carbon footprint. How is it related to disasters? (6)
- b) Illustrate with examples, how the interactions between earth subsystems bring about and intensify disasters. (8)

**Module II**

- 13 a) Discuss the classification of natural disasters. (6)
- b) Explain the elastic rebound theory for earthquakes. Discuss some seismic hazards associated with an earthquake. (8)

**OR**

- 14 What is a tsunami? What are the causes of tsunami? Also discuss the adverse effects of a tsunami. (14)

**Module III**

- 15 a) Explain the methods to control forest fire. (6)  
b) How has climate change influenced forest fire season and frequency? (8)

**OR**

- 16 List out the impacts of soil degradation. Discuss in detail the mitigation measures to reduce the impact. (14)

**Module IV**

- 17 a) Discuss the importance of community participation in disaster management. (6)  
b) What is a disaster management plan? What are its components? (8)

**OR**

- 18 What are the steps involved in a disaster response. (14)

**Module V**

- 19 Prepare a disaster management plan for an earthquake in an urban area. (14)

**OR**

- 20 a) Explain the role of technology in disaster management. (6)  
b) Discuss the essential facilities and activities to be ensured at a relief camp. (8)

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