



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**MAKEUP EXAMINATION – JAN 2023**

**Course Code:** CIV 1001

**Course Name:** Disaster Management and Mitigation

**Program** : B. Tech

**Date:** 30-JAN-2023

**Time:** 01:00PM – 04:00PM

**Max Marks:** 100

**Weightage:** 50 %

**Instructions:**

(i) Read the all questions carefully and answer accordingly.

**Part A [Memory Recall Questions]**

**Answer all the Questions. Each question carries TWO marks.**

**(12Qx 2M= 24M)**

**1.**

**I.** Hazard is any substance, phenomenon or situation, which has the potential to cause disruption. Identify among the four alternatives which is an example for hazard. (C.O No.1) [Knowledge]

a) Climate change b) Loss of life c) Destruction of property d) All of the above

**II.** \_\_\_\_\_ is a climate related disaster and \_\_\_\_\_ is geological disaster. (C.O No.1) [Knowledge]

**III.** Forest fires are destructive to mankind and environment. Which of the following are the impacts of forest fire? (C.O No.1) [Knowledge]

a) Loss of biodiversity b) global warming c) ozone layer depletion d) All of the above

**IV.** Cyclones in India have been frequent for the past decade. Which of the following regions experience maximum number of cyclones in India? (C.O No.1) [Knowledge]

a) Bay of Bengal b) Arabian Sea c) Indian Ocean d) Nicobar islands

**V.** Which of the following was a major nuclear disaster in the history of disasters.

a) Bhopal Tragedy b) Bhuj disaster c) Amphaan disaster d) Chernobyl disaster.

(C.O No.1) [Knowledge]

**VI.** NIDM refers to \_\_\_\_\_ and DDMP stands for \_\_\_\_\_.

(C.O No.3) [Knowledge]

**VII.** Disaster management cycle includes four components namely, \_\_\_\_\_, mitigation, \_\_\_\_\_ and rehabilitation. (C.O No.3) [Knowledge]

**VIII.** Which of the following is responsible for managing inventory of equipment, skilled human resources and critical supplies for emergency response during disaster?

a) NDEM b) NIDM c) IDRN d) Bhuvan, NRSC (C.O No.2) [Knowledge]

- IX.** Which of the following is an initiative of Indian government for promoting the use of ICT for disaster management?  
 a) NRSC      b) NIDM      c) IDRN      d) IMD      (C.O No.2) [Knowledge]
- X.** \_\_\_\_\_ is the art of making maps and \_\_\_\_\_ is the study of shape and size of the earth.  
 [Knowledge] (C.O No.2)
- XI.** Which of the following is not included in Geo-informatics?  
 a) Geodesy   b) Remote Sensing   c) Internet of Things   d) GIS      (C.O No.2) [Knowledge]
- XII.** Identify the Nodal Agencies for Disaster Management in regards to the floods.  
 a) Department of Mines      b) National center for seismology  
 c) Central water commission      d) none of these  
 (C.O No.2) [Knowledge]

### **Part B [Thought Provoking Questions]**

**Answer all the Questions. Each question carries TEN marks. (4Qx10M= 40M)**

2. Disasters are undesirable events resulting in loss of life and property. There could be numerous ways in which they can occur. Enlist the various types of disasters along with suitable examples.  
 (C.O.No.1) [Comprehension]
3. Floods occur when water overflows the bank of rivers, drains etc. Frequency of floods in India is increasing year by year. Define various types of floods and discuss the various impacts of floods with respect to environment and infrastructure.  
 (C.O.No.1) [Comprehension]
4. Disaster monitoring is the application of solutions to an uncertain and changing set of challenges. It is a continuous process that evaluates the progress of various programs by constant monitoring of the physical, social and economic environments. Identify any five tools and techniques that assists in disaster monitoring and explain their functional working in detail.  
 (C.O.No.2) [Comprehension]
5. Disaster Management efforts are geared towards disaster risk management. However, Implementation of the disaster management components is challenging in Indian scenario. Discuss any five such challenges in detail.  
 (C.O.No.3) [Comprehension]

### **Part C [Problem Solving Questions]**

**Answer all the Questions. Each question carries TWELVE marks. (3Qx12M=36M)**

6. The Disaster Management Act of 2005 (DMA 2005) is an act passed by the government of India for the 'efficient management of disasters and other matters connected to it. Explain disaster management act, 2005. Discuss any three governing bodies established under Disaster management act, 2005.  
 (C.O.No. 3) [Application]
7. Information Communication and Technology provides an effective means in disaster monitoring and warning systems. Telephone, Mobile SMS services, Internet and Social media all are the examples of ICT interventions that can be efficient in disaster management. Explain the role of ICT in disaster management.  
 (C.O.No. 2) [Application]

**8.** India's 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12 per cent of land) are prone to floods and river erosion. India is highly vulnerable to floods, droughts, cyclones, earthquakes, landslides, avalanches and forest fires. Out of 35 states and union territories in the country, 27 of them are disaster prone. Discuss the factors affecting Disaster in India and explain their various impacts. (C.O.No. 1) [Application]