### **GUJARAT TECHNOLOGICAL UNIVERSITY**

# Disaster Management SUBJECT CODE: 3700002 SEMESTER: I/II

**Type of course: Audit course** 

Prerequisite: -

Rationale: -

# **Teaching and Examination Scheme:**

| Teaching Scheme |   |   | Credits |              | Total  |                 |        |       |
|-----------------|---|---|---------|--------------|--------|-----------------|--------|-------|
| L               | T | P | C       | Theory Marks |        | Practical Marks |        | Marks |
|                 |   |   |         | ESE(E)       | PA (M) | PA (V)          | PA (I) |       |
| 2               | 0 | 0 | 0       | 50           | 0      | 0               | 0      | 50    |

## Content

| Sl.<br>No. | Topic  | Teaching<br>Hours | Module<br>Weightage |
|------------|--|-------------------|---------------------|
| 1.         | Introduction   | 4                 | (%)<br>17           |
| 1.         | Disaster: Definition, Factors And Significance; Difference                       |                   | 17                  |
|            | Between Hazard And Disaster; Natural And Manmade                                 |                   |                     |
|            | Disasters: Difference, Nature, Types And Magnitude.                              |                   |                     |
| 2.         | Repercussions Of Disasters And Hazards: Economic                                 | 4                 | 17                  |
|            | Damage, Loss Of Human And Animal Life, Destruction Of                            |                   |                     |
|            | Ecosystem. Natural Disasters: Earthquakes, Volcanisms,                           |                   |                     |
|            | Cyclones, Tsunamis, Floods, Droughts And Famines,                                |                   |                     |
|            | Landslides And Avalanches, Man-made disaster: Nuclear                            |                   |                     |
|            | Reactor Meltdown, Industrial Accidents, Oil Slicks And Spills,                   |                   |                     |
|            | Outbreaks Of Disease And Epidemics, War And Conflicts                            |                   |                     |
| 3.         | Disaster Prone Areas In India  | 4                 | 17                  |
|            | Study Of Seismic Zones; Areas Prone To Floods And Droughts,                      |                   |                     |
|            | Landslides And Avalanches; Areas Prone To Cyclonic And                           |                   |                     |
|            | Coastal Hazards With Special Reference To Tsunami; Post-                         |                   |                     |
|            | Disaster Diseases And Epidemics  |                   |                     |
| 4.         | Disaster Preparedness And Management   | 4                 | 17                  |
|            | Preparedness: Monitoring Of Phenomena Triggering A Disaster                      |                   |                     |
|            | Or Hazard; Evaluation Of Risk: Application Of Remote                             |                   |                     |
|            | Sensing, Data From Meteorological And Other Agencies, Media                      |                   |                     |
| ~          | Reports: Governmental And Community Preparedness                                 | 4                 | 1.6                 |
| 5.         | Risk Assessment  | 4                 | 16                  |
|            | Disaster Risk: Concept And Elements, Disaster Risk Reduction,                    |                   |                     |
|            | Global And National Disaster Risk Situation. Techniques Of                       |                   |                     |
|            | Risk Assessment, Global Co-Operation In Risk Assessment                          |                   |                     |
|            | And Warning, People's Participation In Risk Assessment. Strategies for Survival. |                   |                     |
| 6          | Disaster Mitigation  | 4                 | 16                  |

| Meaning, Concept And Strategies Of Disaster Mitigation,          |  |
|--|--|
| Emerging Trends In Mitigation. Structural Mitigation And Non-    |  |
| Structural Mitigation, Programs Of Disaster Mitigation In India. |  |

#### **Reference Books:**

- 1. R. Nishith, Singh AK, "Disaster Management in India: Perspectives, issues and strategies "New Royal book Company
- 2. Sahni, PardeepEt.Al. (Eds.)," Disaster Mitigation Experiences And Reflections", Prentice Hall Of India, New Delhi.
- **3.** Goel S. L., Disaster Administration And Management Text And Case Studies", Deep & Deep Publication Pvt. Ltd., New Delhi.

#### **Course Outcome:**

At the end of the course, the student will be able to:

- 1. learn to demonstrate a critical understanding of key concepts in disaster risk reduction and humanitarian response
- 2. critically evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- 3. develop an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations
- 4. critically understand the strengths and weaknesses of disaster management approaches, planning and programming in different countries, particularly their home country or the countries they work in