IN DISASTER MANAGEMENT [E OF EXAMINATIONS

Semester and Course No.	Nomenclature	Max. Marks	Hours of Teaching per week
COURSE-I	Introduction to Natural & Man-made Disasters	100	6 Hours
COURSE-II	Disaster Preparedness*	100	6 Hours
COURSE-III	Rehabilitation, Reconstruction & Recovery	100	6 Hours
COURSE-IV	Disaster Response and Disaster Management	100	6 Hours
COURSE-V	Risk Assessment and Vulnerability Analysis	100	6 Hours
COURSE óVI	Project Report	100	6 Hours
		600	36 Hours



O NATURAL AND MAN MADE DISASTERS

Max. Marks: 100 (Theory 80 + I.A. 20 Marks)

UNIT-I

Understanding Disasters

Meaning, nature, characteristics and types of Disasters, Causes and effects, Disaster:
 A Global View, Disaster Profile of India, The Disaster Management cycle.

UNIT-II

Geological and Mountain Area Disasters

- Earthquakes
- Volcanic Eruption
- Landslides
- Snow Avalanches

UNIT-III

Wind and Water Related Natural Disaster

- Floods and Flash Floods
- Droughts
- Cyclones
- Tsunamis

UNIT-IV

Man Made Disasters

- Understanding Man-Made Disasters
- Fires and Forest Fires
- Nuclear, Biological and Chemical disaster
- Road Accidents

Notes:

- 1. The paper would be set from the syllabus covering the full content. <u>EIGHT</u> questions, two from each unit, are to be framed. Candidates will have to attempt <u>FOUR</u> questions, one from each unit.
- 2. All questions will carry equal marks.

- 1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
- 2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
- 3. Central Water Commission, 1987, Flood Atlas of India, CWC, New Delhi.
- 4. Central Water Commission, 1989, Manual of Flood Forecasting, New Delhi.
- 5. Government of India, 1997, Vulnerability Atlas of India, New Delhi.
- 6. Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.



PREPAREDNESS

Max. Marks: 100 (Theory 80 + I.A. 20 Marks)

UNIT-I

Introduction to disaster Preparedness

- Disaster Management: Prevention, Preparedness and Mitigation
- Disaster Preparedness: Concept & Nature
- Disaster Preparedness Plan
- Disaster Preparedness for People and Infrastructure
- Community based Disaster Preparedness Plan

UNIT-II

Roles & Responsibilities of Different Agencies and Govt.

- Roll of Information, Education, Communication & Training
- Role and Responsibilities of Central, State, District and local administration.
- Role and Responsibilities of Armed Forces, Police, Para Military Forces.
- Role and Responsibilities of International Agencies, NGOøs, Community Based Org. (CBOøs)

UNIT-III

Technologies for Disaster Management

- Role of IT in Disaster Preparedness
- Remote Sensing, GIS and GPS
- Use and Application of Emerging Technologies
- Application of Modern Technologies for the Emergency communication.
- Application and use of ICST for different disasters.

UNIT-IV

Disaster Mitigation

- Disaster Mitigation: meaning and concept
- Disaster Mitigation Strategies
- Emerging Trends in Disaster Mitigation
- Mitigation management
- Role of Team and Coordination

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- 2. All questions will carry equal marks.

- 1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
- 2. Roy, P.S. (2000): Space Technology for Disaster management: A Remote Sensing & GIS Perspective, Indian Institute of Remote Sensing (NRSA) Dehradun.
- 3. Sharma, R.K. & Sharma, G. (2005) (ed) Natural Disaster, APH Publishing Corporation, New Delhi.
- 4. <u>www.GIS</u>. Development.net
- 5. <u>www.iirs.nrsa.org</u>
- 6. http://quake.usgs.gov



ON, RECONSTRUCTION AND RECOVERY

Max. Marks: 100 (Theory 80 + I.A. 20 Marks)

UNIT-I

- Reconstruction and Rehabilitation as Means of Development
- Damage Assessment
- Role of various Agencies in Disaster Management and Development
- Information Management Structure
- Development of Physical and Economic Infrastructure

UNIT-II

- Creation of Long-term Job Opportunities and Livelihood Options
- Funding Arrangements for Reconstruction
- Nature of Damage to Houses and Infrastructure due to Disasters
- Disaster Resistant House Construction
- Role of Housing/Building Authorities

UNIT-III

- Education and Awareness
- The Philosophy of Coping with Disasters
- Dealing with VictimsøPsychology
- Role of Information Dissemination
- Participative Rehabilitation Process: Some Case Studies

UNIT-IV

- Role of Various Agencies in Recovery Measures
- Monitoring and Evaluation of Rehabilitation Work
- Constraints in Monitoring and Evaluation
- Long-term Recovery
- Long-term Counter Disaster Planning

NOTES:

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- 2. All questions will carry equal marks.

- 1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
- 2. Kasperson, J.X., R.E. Kasperson, and B.L. Turner III (Eds.), 1995, Regions at Risk: Comparisons of Threatened Environments, United Nations University Press, Tokyo
- 3. Singh Satendra (2003): Disaster Management in the Hills, Concept Publishing Company, New Delhi.
- 4. <u>www.nidmindia.nic.in</u>
- 5. http://www.cambridge.org.



ER RESPONSE AND MANAGEMENT

Max. Marks: 100 (Theory 80 + I.A. 20 Marks)

UNIT-I

Response Essential Components

- Disaster Response Plan
- Communication, Participation and Activation of Emergency Preparedness Plans
- Search, Rescue, Evacuation and other logistic management
- Needs and Damage Assessment; Types and Technique

UNIT-II

Stakeholders Co-ordination in Disaster Response

- Disaster Response: Central, State, District and Local Administration.
- Armed Forces in Disaster Response: Role and Responsibility
- Disaster Response: Police and Other organisations
- Role of Multiple stakeholders in Disaster Response

UNIT-III

Human Behaviour and Response Management

- Psychological Response and Psychological Rehabilitation
- Trauma and Stress Management
- Rumour and Panic Management
- Medical and Health Response to Different Disasters
- Role of Information and Communication Technology in Response Management.

UNIT-IV

Relief Measures

- Minimum Standard of Relief
- Relief Management- essential components
- Funding Relief- short term and long term
- Disaster Site Management
- Recovery.

NOTES:

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- 2. All questions will carry equal marks.

- 1. White, G.F, 1974, Natural Hazards: Local, National, Global, Oxford University Press, New York.
- 2. Taori, K (2005) Disaster Management through Panchayati Raj, Concept Publishing Company, New Delhi.
- 3. www.nidmindia.nic.in



MENT AND VULNERABILITY ANALYSIS

Max. Marks: 100 (Theory 80 + I.A. 20 Marks)

UNIT-I

- Hazard, Risk and Vulnerability: Concept and Relationship
- Understanding Risk: Concepts and Elements
- Disaster Risk Reduction
- Risk Analysis Techniques
- People Participation in Risk Assessment

UNIT-II

- Vulnerability: Concept and Parameters
- Vulnerability Analysis
- Observation and Perception of Vulnerability
- Vulnerability Identification

UNIT-III

- Socio-Economic Factors of Vulnerability
- Vulnerability of Shanty Town
- Experience of Vulnerability in India
- Strategies for Survival

UNIT-IV

- Role of Developmental Planning for disaster Management
- Resource Analyses and Mobilisation
- Population Growth, Infrastructure and Vulnerability Reduction
- Social Infrastructure For Vulnerability Reduction

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- 2. All questions will carry equal marks.

- 1. White, Gilbert F. and J. Eugene Hass, 1975, Assessment of Research on Natural Hazards, Cambridge, the MIT Press, MA.
- 2. NOAA Coastal Services Center, õLinking People Information and Technology,: õRisk and Vulnerability Assessment Toolö, at, http://www.csc.noaa.gov/rvat/criticalEdd.html
- 3. www.nidmindia.nic.in
- 4. http://www.cambridge.org.

