

INDEPENDENT ELECTIVE PAPER - 2

PIBAB20 – DISASTER

MANAGEMENT

Year/ Sem	Course Code	Title of the Course	Course type	Course Category	H/ W	Credits	Marks
I / I	PIBAB20	Disaster Management	Theory	Independent Elective	-	2	100

OBJECTIVES

1. To gain knowledge about the concept of disaster
2. To attain in depth understanding of the various dimensions and typology of disasters
3. To acquire the knowledge different National & International Agencies for disaster Management in India
4. To acquire the knowledge and information related to Disaster Mitigation, Preparedness & Planning
5. To empower and inhibit the knowledge about the Disaster Rehabilitation & Futuristic Sustainable Measures adopted

COURSE OUTCOMES

The learners will be able to

CO1: Understand the knowledge about the concept of Disaster

CO2: Attain in depth understanding of the various dimensions and typology of disasters

CO3: Acquire the knowledge different National & International Agencies for disaster Management in India

CO4: Acquire the knowledge and information related to Disaster Mitigation, Preparedness & Planning

CO5: Empower and inhibit the knowledge about the Disaster Rehabilitation & Futuristic Sustainable Measures adopted.

CO	PO					
	1	2	3	4	5	6
CO1	M	H	M	H	M	M
CO2	M	H	M	H	M	M
CO3	H	M	H	M	H	H
CO4	H	H	H	M	H	H
CO5	M	M	M	H	H	H

CO	PSO					
	1	2	3	4	5	6
CO1	H	M	L	L	L	M
CO2	H	L	L	M	L	M
CO3	H	L	L	H	M	M
CO4	H	M	L	L	M	H
CO5	H	M	M	L	M	H

H-HIGH(3), M-MODERATE(2), L-LOW(1)

Unit I - Concepts of Disaster

- 1.1: Disaster (K1)
- 1.2: Hazards – Emergency vulnerability (K1, K2)
- 1.3: Courses and impact of disaster – Levels of disaster (K2)
- 1.4: Effects of disaster (K2, K3)
- 1.5: Causal factors of disaster (K2, K3)
- 1.6: Phases of disaster (K1, K2, K3)

Unit II - Various dimensions and typology of Disasters

- 2.1: Calamities – Meteorological – Hydrological (K1, K2)
- 2.2: Calamities - Geological – Extra Terrestrial (K1, K2)
- 2.2: Typology of Disaster – Earthquakes – Tsunami – Volcanoes – Landslides – Cyclones – Floods – Droughts (K1, K2, K3, K4)
- 2.3: Environment Pollution (K1, K2, K3)
- 2.4: Deforestation (K1, K2, K3)
- 2.5: Desertification (K1, K2, K3)

Unit III - National & International Agencies for Disaster Management in India

- 3.1: National Crisis Management Committee (NCCM) – The Disaster management Act 2005 – National Civil Defence Organization - Department for Humanitarian Affairs (DHA) (K1, K2)
- 3.2: Inter – Agency Standing Committee (IASC) – Office for the Coordination of Humanitarian Affairs (OCHA) – Food and Agricultural Organization (FAO) (K1, K2, K3)

3.3: United Nations Development Programs (UNDP) – United Nations High Commissioner for Refugees (UNHCR) – World Food Programme (WFP) (K1, K2, K3)

3.4: World Health Organization (WHO) – International Committee of the Red Cross (ICRC) (K1, K2, K3)

3.5: International Federation of Red Cross & Red Crescent Societies (IFRC) – International Organization for Migration (IOM) (K1, K2, K3)

3.6: International Atomic Energy Agency (IAEA) – United Nations Sahelian Office (UNSO) – The UN and the role of NGOs (K1, K2, K3, K4)

Unit IV - Disaster Mitigation, Preparedness and Planning

4.1: Disaster Mitigation – Meaning – Impact – Menu of mitigation agents (K1, K2, K3)

4.2: Disaster management cycle – Classification of mitigation measures – Investing in disaster mitigation (K1, K2, K3)

4.3: Disaster Preparedness – Objectives - Principles of disaster planning – Involvement (K1, K2, K3)

4.4: Disaster Risk Assessment – Concepts – Factors – Assessing risk – Phases – Steps (K1, K2, K3, K4)

4.5: Disaster risk management (K1, K2)

4.6: Disaster insurance (K1, K2)

Unit V - Disaster Rehabilitation and Futuristic Sustainable Measures

5.1: Meaning – Issues in rehabilitation – Hindrances to normalization (K1, K2)

5.2: Rehabilitation approaches (K1, K2)

5.3: Rehabilitation from shelter to housing (K1, K2, K3)

5.4: Material distribution for rehabilitation (K1, K2, K3)

5.5: Role of building Materials and services banks (K1, K2, K3, K4)

5.6: Keys to sustainable measures in disaster management (K1, K2, K3)

Note: Case studies for all Units (K5, K6)

Text Books

1. Modh Satish, Introduction to Disaster Management, Macmillan Publishers India Private Limited, Reprint 2012, New Delhi

Reference Books

1. Ayaz Ahmad, Disaster Management: Through the New Millennium, Anmol Publications, 1st Edition, New Delhi, 2003

Websites

1. www.corsera.org

INDEPENDENT ELECTIVE PAPER - 3

PIBAC20 - INDUSTRIAL SAFETY AND POLLUTION MANAGEMENT

Year/ Sem	Course Code	Title of the Course	Course type	Course Category	H/W	Credits	Marks
I / I	PIBAC20	Industrial Safety and Pollution Management	Theory	Independent Elective	-	2	100

OBJECTIVES

1. To Acquaint the Students about Safety Management, Responsibilities of Safety, Safety Officer & Committee
2. To Gain Insight on Industrial Accidents
3. To Imbibe the Methods of Maintaining Harmony within the Industry
4. To Ascertain the Procedures of Environmental Safety
5. To Inhibit Knowledge on Environmental Pollution Act

COURSE OUTCOMES (CO)

The learners will be able to

CO1: Acquire Knowledge on Industrial safety Management

CO2: Understand the formation and need for insight on Industrial Accidents

CO3: Attain knowledge in the requisites of legal provisions towards Safety

CO4: Understand the concepts of Environmental Management

CO5: Acquires knowledge on Environmental Pollution Act.

CO	PO					
	1	2	3	4	5	6
CO1	M	M	M	H	M	M
CO2	M	M	H	H	M	H
CO3	H	H	H	H	H	H
CO4	H	H	H	M	H	H
CO5	M	H	M	M	H	H

CO	PSO					
	1	2	3	4	5	6
CO1	H	H	H	H	M	M
CO2	H	H	H	M	M	H
CO3	H	H	H	H	H	H
CO4	H	H	H	H	H	H
CO5	H	H	H	M	H	H

H-HIGH (3), M-MODERATE (2), L-LOW (1)

Unit I: Management of Safety in Industry

- 1.1 Concept (K1, K2)
- 1.2 Applicable areas - Unsafe actions and Conditions (K1, K2)
- 1.3 Responsibility of Safety – Society, Government, Management, Union and Employees Appointment (K1, K2, K3)
- 1.4 Qualification (K1, K2)
- 1.5 Duties of Safety Officer (K1, K2)
- 1.6 Safety Committee – Membership - Functions –Scope of Safety – Training of employees for Safety in Industrial Operations (K1, K2, K3, K4)

Unit II: Industrial Accidents

- 2.1 Causes & effects of Industrial Accidents (K1, K2)
- 2.2 Accident Ratio Theory (K1, K2, K3)
- 2.3 Cost of Accidents (K1, K2)
- 2.4 Impact of Accidents on employees (K1, K2, K3)
- 2.5 Responsibility in the prevention of Accidents (K1, K2, K3)
- 2.6 Union, Management, Society and their role.(K1, K2,K3,K4)

Unit III: Legal Provisions Regarding Safety

- 3.1 Legal provisions regarding safety (K1, K2)
- 3.2 Accident Prevention & Compensation under Factories Act -1948 (K1, K2, K3)
- 3.3 Fatal Accident Act (K1, K2)
- 3.4 Functions of National Safety Council –Accidents – Recording – Investigation – Analysis and Reporting (K1, K2, K3, K4)
- 3.5 Workmen Compensation Act 1923 (K1, K2, K3)
- 3.6 ESI Act Public Liabilities Insurance Act – 1991 (K1, K2, K3)

Unit IV: Industrial Enchantment for Environmental Safety

- 4.1 Environmental Protection Act 1986 (K1, K2)
- 4.2 Definition (K1, K2,)
- 4.3 Occupier (K1, K2)

- 4.4 Handling of Hazardous Substance (K1, K2, K3, K4)
- 4.5 Offences by Companies (K1, K2, K3)
- 4.6 Penalties for the Contravention of the Act (K1, K2, K3)

UNIT V: Environmental Pollution Act

- 5.1 Air Pollution Act 1942- Definition – Air Pollution (K1, K2)
- 5.2 Chimney – Approval & Its Role (K1, K2, K3)
- 5.3 Fuel – Emission, Powers & Functions of Central & State Boards (K1, K2, K3)
- 5.4 Water Pollution Act 1974 – Definition – Sewage & Trade effluent – Outlet stream
Offences by Companies, Penalties & Procedures (K1, K2, K3, K4)
- 5.5 Noise Pollution Act – Definition of Sound & Noise – Sources of Noise –
Measurement of Noise – Effect of Noise (K1, K2, K3)
- 5.6 Physiological, Psychological & Behavioral – Noise Control (K1, K2, K3)

Note: Case studies for all Units .(K5.K6)

Text Books

- 1. Donald Hanter , Health in Industry Penguin, London; 1st Edition edition (1959)

Reference Books

- 1. P. K. Trivedi Environmental Protections and Law Neha Publishers & Distributors (1994)

Websites

- 1. www.coursera.org