

DM QUESTION BANK

UNIT-I

1 MARK

- 1.What is environmental hazard?
- 2,What is disaster management?
- 3.Define disaster management?
- 4.What are the different types of environmental hazards?
- 5.Define meteorological disaster?
- 6.List the causes of environmental pollution

12 MARKS

- 1.Distinguish between environmental stress, hazard and disaster giving examples
- 2.Explain the vulnerabilities to flood and earth quakes?
- 3.Explain briefly about the concept of environmental hazards and disaster
- 4/Write about vulnerabilities to earthquakes and floods?
- 5.Explain the types of disasters?
- 6.Write about different approaches for disaster?

DISASTER MANAGEMENT

Question Bank

UNIT - I

1) What is Environmental hazard?

An Environmental hazard is any condition, process or state adversely affecting the Environment.

2) What is Disaster Management?
It is defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of Emergencies, in particular preparedness, response & recovery in order to lessen the impact of Disaster.

3) Define Disaster management?
A sudden accident or a natural catastrophe that causes great damage & loss of life.

4) What are the Different types of Environmental hazards?
chemical hazards
Biological hazards
Ergonomic hazards
Electrical hazards.

5) Define meteorological Disaster?
meteorological Disasters are caused by Extreme weather. Eg: Rain, Drought, Snow, Extreme heat & cold.

6. List the causes of Environmental pollution?
- sewage
 - Industrial effluent
 - Agricultural runoffs
 - Toxic metals
 - Gasous pollutants.

7.

Essay

Distinguish between Environmental stress, hazard and disaster giving examples.

Environmental stress	Hazard	Disaster
① It is defined as the emotional, cognitive and behavioural responses to an environmental stimulus.	It is phenomena that has the potential to cause destruction to life & property.	It is an event that actually harms humans and disrupts the operations of society.
② Types of Environmental stress — Environmental stressors. Eg: war, temperature, noise and crowd.	Types of hazards — hydrological — meteorological — Geological Has less critical consequences	Types Agricultural disease 2) Damaging winds 3) Drought & water shortage 4) hail Has more critical consequences & more catastrophic.
③ Has more impact on the environment factors can trigger stress.	Take its full shape after a series of events, which might have led it to happen	often happens in a short time, causing more severe effects
④		

2) Explain the vulnerabilities to flood and Earthquakes?

Vulnerability is a set of prevailing or consequential conditions, which adversely affect an individual, a household or a community's ability to mitigate, prepare for respond to any hazard.

Earthquake vulnerability within minutes of shaking, the Earthquake reveals the vulnerabilities of buildings, households, communities, and of a country. The consequences expose flaws in governance, planning, siting of physical structures, design, construction & use of the built environment in country with seismic hazard. It reveals the influence of prevailing culture & way of life, on the capacity of community to be preparedness for an Earthquake hazard. The scale of physical damage and social disruption inflicted upon a community or a nation by an Earthquake event is the measure of how vulnerable the community is.

Earthquake vulnerability is thus a function of the potential losses from earthquakes. It reflects the unattended weakness in the built environment of a community & the constraints in the society that affects ability to absorb losses after an earthquake.

Floods vulnerability

Human systems are vulnerable to floods due to ③ vital aspects

Exposure

Susceptibility & resilience.

When rain falls, the surface runoff can move very quickly from mountainous or hilly areas to low lying

Areas more prone to flooding. Human activities that degrade the Environment often increases flooding. These activities include Deforestation.

Causes of floods

- ① storm surges
- ② Melting snow & Ice
- ③ Urban Drainage Basins
- ④ Overflowing Rivers
- ⑤ A lack of vegetation.

⑩ Measures taken to prevent flooding

- ① Introduce better flood warning system.
- ② Modify homes & Business
- ③ Construct Buildings above floods levels
- ④ Tackle climate change
- ⑤ Restore Rivers to their natural course
- ⑥ protect wetlands, and introduce plant trees Strategically.
- ⑦ Increase spending on flood defenses
- ⑧ Introduce water storage areas
- ⑨ Environment protection
- ⑩ Eco-friendly product usage

Managing present day and future risk from flooding involves a combination of risk-avoidance & reduction risk activities.

3) Explain Briefly about the concept of Environmental hazards and disasters.

An Environmental hazard is a substance, which has the potential to threaten the surrounding natural Environment.

Any single or combination of toxic chemical, biological, or physical agents in the Environment, resulting from human activities or natural processes, that may impact the health of exposed subjects, including pollutants such as heavy metals, pesticides, biological contaminants, toxic waste, industrial and home chemicals.

Hazards are categorized in 4 types

- ① chemical — paints, drugs, cosmetics, cleaning agents etc.
- ② physical — working from heights, vibrations, loud noises etc.
- ③ Biological — Includes viruses, Bacteria, Insect.
- ④ psychosocial hazard — stress, Fatigue, Aggression.

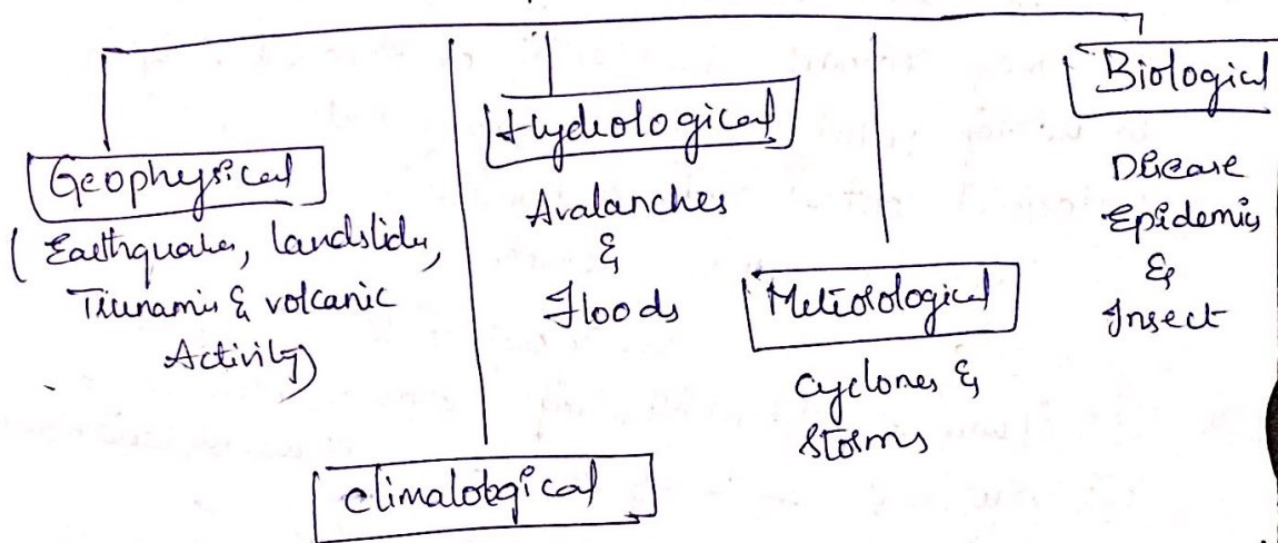
Prevention of Environmental hazards

Control approaches and strategies.

- ① "plan out" the Exposure, by not using hazardous substances, or using them in such a way that no one is exposed.
- ② Prevent or minimize the Emission of the substance to the air.

Disaster is a serious disruption occurring over a short or long period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope using its own resources.

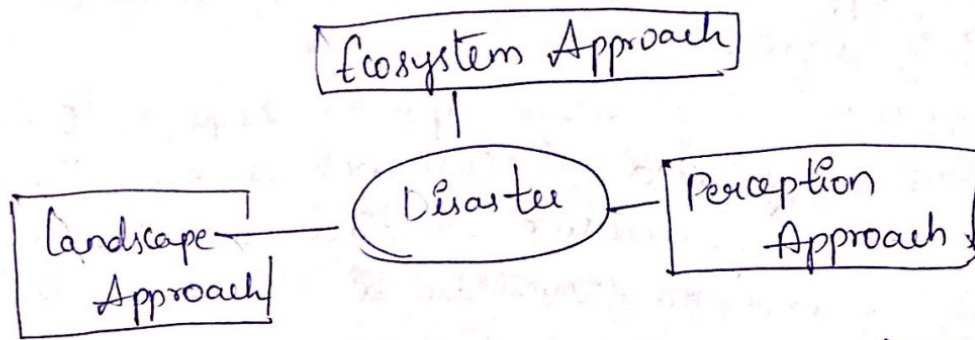
Types of Disasters



Eg: Extreme temperatures
Drought & wild fires

There are Direct and Indirect losses distinguish between the Immediate & delayed losses as a result of disaster. Direct losses refer to the physical or structural impact caused by the disaster such as the destruction of infrastructure caused by the force of high winds, flooding or ground shaking.

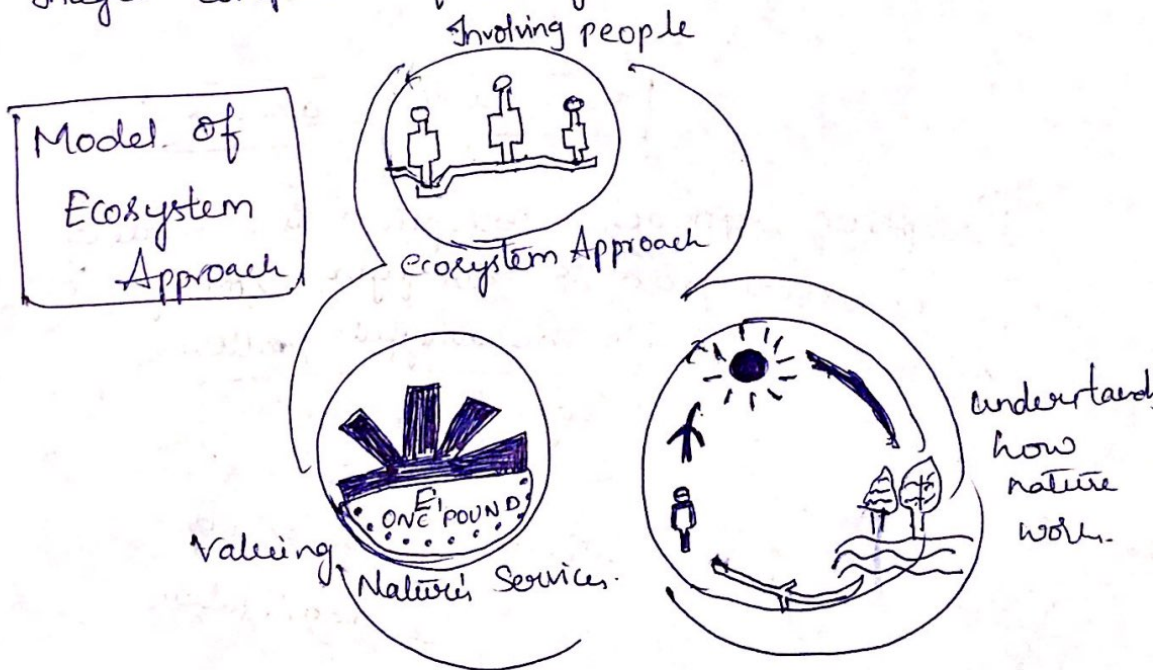
Q) Different Approaches for Disaster Management



Ecosystem Approach: An Ecosystem is a community of living organisms in conjunction with the nonliving components of their environment.

It is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

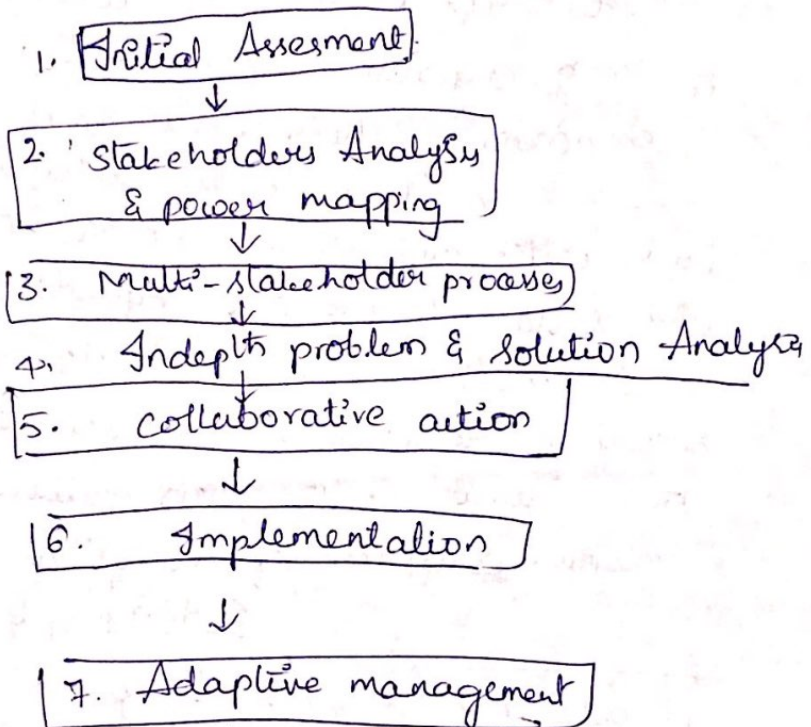
It is focused on levels of biological organization which encompass the essential processes, functions and recognizes that humans, with their cultural diversity, are an integral component of ecosystems.



LANDSCAPE is a flexible concept without a clearly defined spatial entity or physical space.

This approach is an interdisciplinary, crosssectoral & holistic approach.

- Applying the landscape approach helps to overcome barriers by sectors and contributes to effect risk management by connecting all stakeholders involved, starting with the communities at risk in the landscape



Perception Approach Perception is a reality
- the mental process of identifying, sorting & arranging stimulus data into meaningful patterns.

Stages in perception Approach

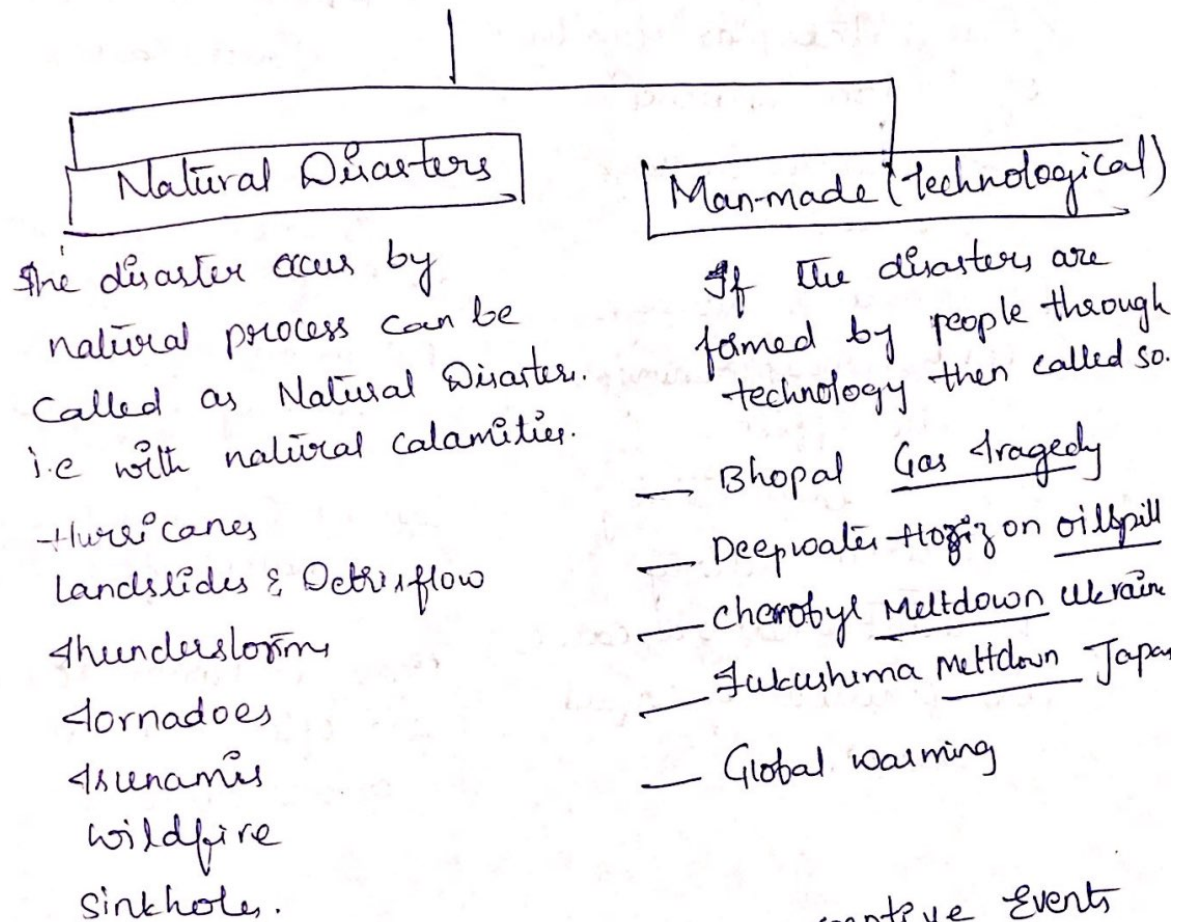
- Stage I Selection
- II Organization
- III Interpolation

5 Explain the types of Disaster.

Disaster means a catastrophe, a mishap, a calamity or grave danger event occurred in an area and affected life and properties.

It may be arising from natural or man-made cause.

Disasters are Broadly classified into two categories



Causes of Natural Disasters are the unforeseen events resulting from different natural processes. These natural events triggered by natural hazards cause destruction of life & property as well.

Man-made disasters are the result of carelessness or human errors during technological and industrial use. The disasters are in the form of accidents which occur all of a sudden & take a huge toll on life and property. Mostly such disasters cause injuries, diseases and casualties where they occur.

Natural

- 1) Uncontrollable, natural causes & take place regardless of human influence.
- 2) Cause extensive damage and losses.
- 3) Preparation & damage control may minimize the effects.
- 4) Can be impacted by human activity.
- 5) Discernible natural causes and contributing hazard events.

Man made.

Human activity the direct cause.

Both intentional or unintentional causes have devasting effects. prevention, vigilance & planning may avoid it.

Can be amplified by natural forces.

Come in various forms and often from an obscure origin.