

PART - A

(10 × 2 = 20 Marks)

1) Disaster Management :- It can be defined as the organisation and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in order to - lessen the impact of disasters.

2) Different types of Environmental Hazards :-

Environmental is a substance (or) state (or) event which has the potential to threaten the surrounding natural environment (or) adversely affect people's health.

Hazards can be categorised into 4 types

- 1) physical hazard
- 2) Chemical hazard
- 3) Biological hazard.
- 4) Psycho social hazard.

3) Risk Management :- It is the application of disaster risk reduction policies and strategies to prevent new disaster risks, reduce
→

existing disaster risk, contributing to the - strengthening of resilience and reduction of - disaster losses,

4A) Crisis Management:- It is the process by - which an organization deals with a disruptive and unexpected event that threatens to harm the organization (or) its stake holders,

5A) Capacity Building Types:-

1) Perspective Building.

2) Review workshops.

3) Legal - Aid Training workshop.

4) Thematic workshops.

5) Project Selection workshop.

6A) Techniques used to reduce the risk:-

Prevention, mitigation, Preparedness, response and recovery are the five steps to reduce the risk.

7A) Two examples of coping strategies:-

Coping Strategy is the psychological - Process that individuals use to manage thoughts, feelings and actions encountered during -

→

- Various stages of ill health & treatment.

Two examples of Coping strategies:-

1) Instrumental Support

2) Self-distraction.

8A) Coping Strategy:- It is the psychological process that individuals use to manage those -ghts, feelings and actions encountered during various stages of ill health & treatment.

9A) Three stages of disaster management:-

① Preparedness

② Response

③ Recovery.

10A) Three pre-disaster activities to reduce the impact of cyclones:-

1) prepare emergency plan

② prepare your home

3) prepare emergency kit.

11A) Types of Disaster:-

Disaster is a sudden catastrophic - event that causes wide spread and immense - damage, which will have effect on all kinds of living organisms, loss of life, loss of property and economic, environmental loss. (3M)

Based on the origin of disaster, they - are broadly categorized into two types.

1) Natural Disaster

2) Manmade Disaster. [Anthropogenic]

Natural Disasters:- These are the destructive forces of nature that have severe - impact on the environment. It is again - classified into two types. (7M)

① Major Natural Disaster.

ex- cyclones, earthquakes, floods, volcanic eruptions.

② Minor Natural Disaster.

ex- heat waves, cold waves, landslides, thunder storms;

2) Man made disasters :- There are caused by - human activities leading to loss of life and - property as well as damage to the environment. ex - Pollution, Terrorism, Road & rail accidents, Bomb explosions, Industrial accidents, Nuclear accidents, chemical spills etc. (8)

i) Major Man made Disasters :- Deforestation, Pollution, forest fires, wars.

ii) Minor Man made disasters :- Road & rail - accidents, food poisoning.

All these types of disasters disrupts the functioning of society and cause increase levels of mortality, due to injuries and - increased risk for outbreak of communicable diseases.

The effects of disasters will be more, depending upon the intensity of the disasters. Proper relief measures should be taken, in order to reduce the loss of life.

12) Different approaches for disaster:-

Approaches to disaster management -
Involves the sustainable use of resources & sustainable management of Ecosystem. & how humans should be aware of the disaster - management skills. (8M)

There are 3 approaches to disaster - management:-

- 1) Ecosystem approach.
- 2) Perception approach
- 3) Land slope approach.

1) Ecosystem Approach:- It is a strategy to - (8M)
- maintain proper balance between the conserva-
- tion and use of biological diversity and sustain-
- able use of resources. This is because of the-
fact that humans and their activities have a
considerable effect on the environment causing-
distraction, modification of habitat, deforestation,
over exploitation of available resources and
global climate change.

This approach has several advantages-
- ges like restoration of the original natural-
- ecosystems, on which local livelihoods survi-
- ve ->

and increase human well being as resilient eco-system helps to recover.

(4)

2) Perception Approach:- ~~It is~~ This approach to disaster management involves risk-analysis, environmental perception, and anxiety management, information processing, decision making, media coverage during disaster, & psychological impacts of disasters on human beings. All types of vulnerabilities of humans and environment can be minimized by adopting safeguard approaches to disaster-management.

3) Landscape Approach:- This approach to disaster management is a fast evolving concept in which both conservation & sustainable use of the components of biodiversity and land resources. It involves communities in the decision making process for sustainable, healthy ecosystems. that facilitates a decrease in the impact of disasters.

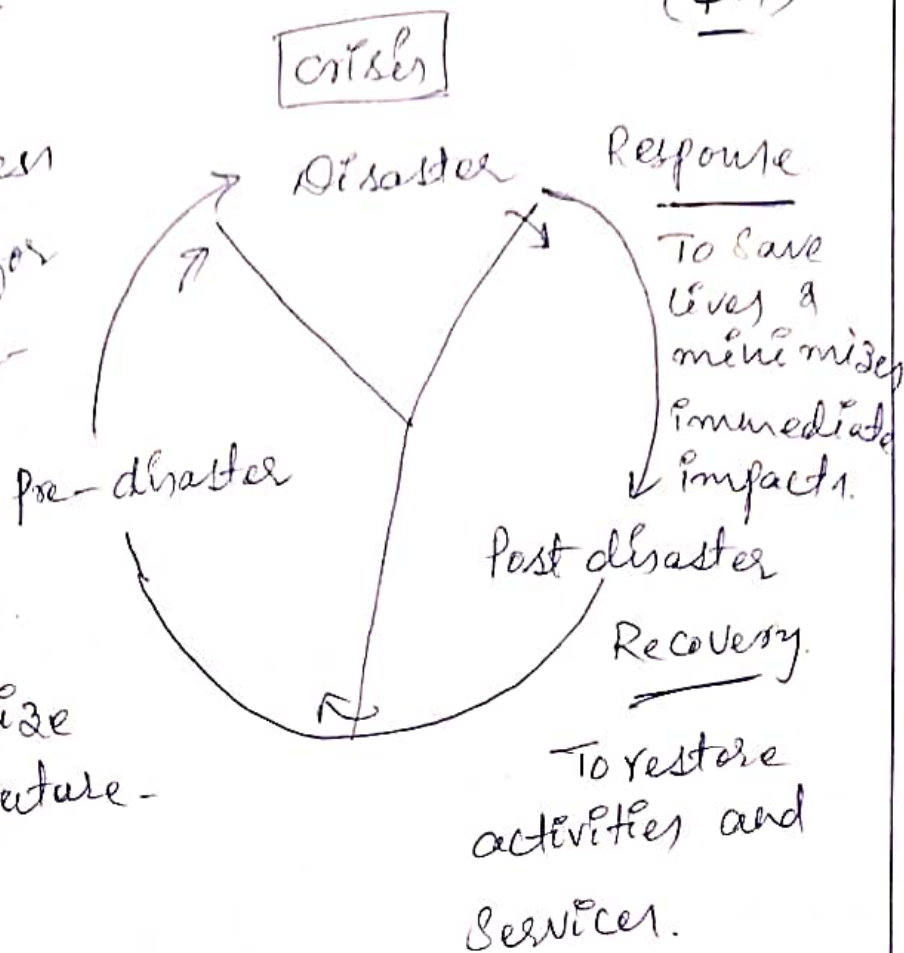
13/11/18

Disaster cycle :-

(4M)

Preparedness
To prepare for
managing the
crisis

Prevention
To minimize
impacts of future-
disasters.



The disaster management cycle is a series of ~~steps~~ steps that organizations and individuals use to prepare, contain and mitigate - ~~un~~ unexpected events. It helps everyone - lessen the impact of unexpected events & recover as many resources as possible after the initial crisis subsides. It helps in - helping the individuals rebuild, regroup &

recover;

→

There are many steps in the disaster management cycle, including; ⑤

6M ↓

i) Prevention:- It involves identifying potential hazards and creating solutions that can help minimize the impact. This part of the cycle involves preparation before crisis.

It may involve an evacuation plan for a large population, such as a school, apartment complex or city. Other prevention methods involve more long-term plans, such as building structures with in and around a city, to prevent flooding.

ii) Preparedness:- Developing preparedness in an individual, group or community is a process that develops & improves over time.

Preparedness training involves fire drills, active shooter drills and evacuation procedures.

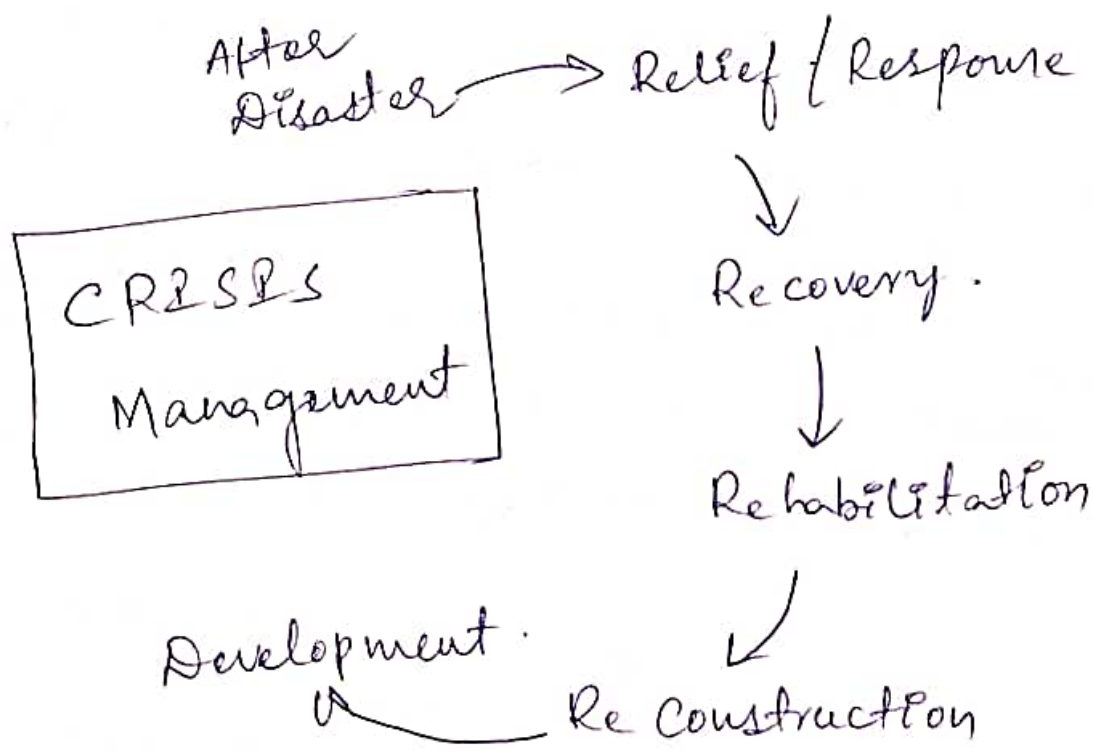
These drills may take place in locations where people gather, such as malls, schools, churches, city squares, apartment complexes, hotels etc. →

(ii) Response:- This phase is the immediate reaction from everyone after a disaster occurs. It involves both long and short-term responses, both of which can heavily impact the overall outcome. Coordinate the resources, use throughout the response operation to help - ensure the maintenance of personal & environmental safety.

(iv) Recovery:- It is the last phase of the disaster management cycle. It involves the recovery and rehabilitation of the people and property. This can include individual therapy, group sessions, physical recovery. Recovery can involve rebuilding homes and restoring the local economy.

14) Crisis Management :- It is the process by which an organization deals with a disruptive and unexpected event that threatens to harm the organization / an area / a community.

Crisis Management comes after the occurrence ~~after~~ of disaster. (4M)



There are stages in crisis management :- (6M)

① first stage :- Identifying the crisis - nature. It is clustered in to the following -
 → Natural crisis occur due to natural disasters.

i) Organizational misdeed crisis:- occurs when management take actions, that harm stakeholders without suitable precautions.

ii) Deception crisis:- occurs due to lack of transparency from the management about certain information.

iii) Skewed Value crisis:- occurs when short-term gain favoured & values are neglected.

iv) Rumors crisis:- occurs when false information about an organisation & its product hurt the organisations reputation.

2) Second Stage:- is preparing for the crisis. It is done by i) vulnerability Assessment. ii) crisis planning.

3) Third Stage:- is preventing the crisis from happening.

4) Fourth stage is responding to the crisis.

5) Fifth stage is recovering from crisis.

ISA

Structural & Non Structural measures -
asses the capacity:-

Capacity building is the process of developing & strengthening the skills, instincts, processes & resources that organizations & communities need to survive, adapt & thrive in fast-changing world. (2M)

Capacity building can be measured by 2 ways

- ① Structural Mitigation.
- ② Non-Structural Mitigation.

Mitigation:- The lessening (or) limitation of the adverse impacts of hazards & related disasters. (4M)

Structural Mitigation:-

Any physical construction to reduce (or) avoid possible impacts of hazards (or) application of engineering techniques to achieve hazard resistance and

and resilience in structures (or) systems.

Components of Structural Mitigation:-

- a) resistant construction
- b) Building codes & regulatory measures.
- c) Relocation.
- d) Structural Modification.
- e) physical Modification.
- f) Gutter Beam
- g) Column.

Non-Structural Mitigation (4M)

Any measure not involving physical construction that uses knowledge, practice-

- a) agreement to reduce risks and impacts, in particular through policies, laws, public-awareness raising training & education.

Components:-

- i) furniture & fixture
- ii) School Equipment.
- iii) Electrical wiring
- iv) Show case & frame

16) Man Made disaster case study on man-made disaster

⑧

Man made Disaster :- These are caused by human negligence & their activities leading to loss of life and property as well as damage to the environment. (3M)

These are 2 types.

- 1) Major Man made disaster
- 2) Minor Man made disasters.

• Case Study :- One of the first and most effected, worst man made disaster is the Bhopal gas tragedy, 1984 / Bhopal Industrial disaster. It occurred at the Union-Carbide pesticide plant located in a densely populated region in the city of Bhopal on 2nd ~~20th~~ december, 1984, night time. (7M)

It is one of the greatest chemical disasters in the history. →

The poisonous & highly toxic clouds of highly suffocating clouds of Methyl Isocyanide (MIC) - gas released accidentally into the residents of the city killing 2000 people immediately & injuring about 3 lakh people.

In addition about 1000 animals were killed and about 7000 were injured.

Among the survivors of the tragedy many of them still continue to suffer from one or several health problems from the disastrous effects of the massive poisoning.

(7) Coping up with disaster and its procedure:-

Coping refers to efforts to master, reduce or tolerate the demands created by stress.

Disaster coping means, we need to adapt the situation in a better way by using variable strategies (3M)

→

Common coping patterns of limited value: ^(7M) (9)

① Giving up:- Cognitive interpretation of aversive events may determine whether we feel helpless (or) not.

2) Sticking out at others.

3) Indulging yourself

4) Blaming yourself.

5) Using defensive coping.

Step-I



Specify your target Behaviour



Step-II - Gather Baseline data.

Identify possible controlling antecedents
of consequences



Step-III - Design your program



↓
Step-4:- Execute and Evaluate your pro-
-gram

↓
Step-5:- Bring your program to an -
- End.

By this way we can handle the people-
during disasters by coping them in a syste-
-matic way of individual behaviours.

18) The changing Concepts of DM:-

It includes Industrial Safety plan-

→ 1) Safety norms. (2M)

→ 2) Survival kits.

→ 3) Mass media.

Safety plan for fire hazards:-

→ know the roots of fire safety; (4M)

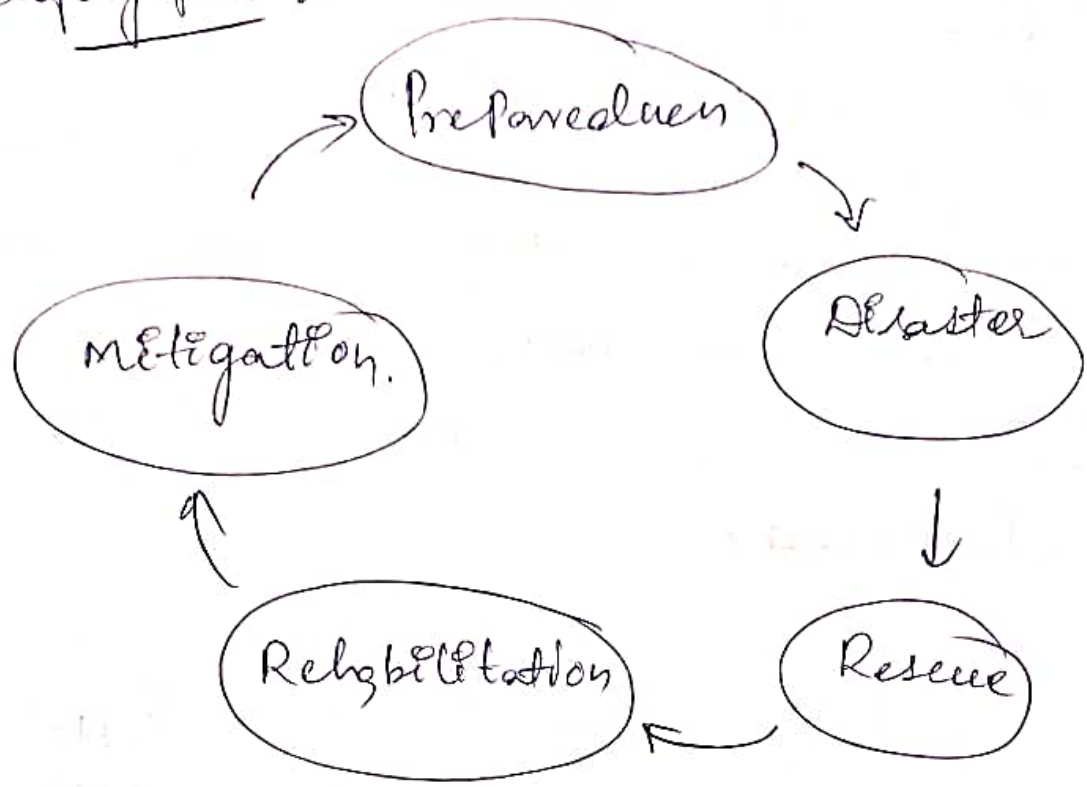
→ fires that are small, soon will spread

& become huge.

→

→ Get out before the smoke gets thick

Safety plan:-



Safety norms / measures:- (4M)

- i) Sand is suitable for inflammable - liquids & combustible metal fires.
- ii) water suitable for general fires.
- iii) Hydrants at suitable locations with water - jets can ideally be used for.
- iv) Power filled fire extinguishers can be used for electric wires.
- v) wear your appropriate personal safety dress →

19) Pre-disaster planning steps:

Intro direction: — Pre-disaster recovery planning ^(3M) builds - resilient communities better able to withstand, respond to and recover from disasters, ensuring faster rebuilding, greater community cohesion and more effective city operations in the rebuilding phase that follows a disaster event.

Predisaster steps are as follows: ^(7M)

- | | |
|------------------|-------------------|
| 1) prevention. | } Risk Management |
| 2) mitigation. | |
| 3) Preparedness. | |

1) Prevention — Prevention is always better than making proper preventive measures to avoid a hazard becoming a disaster.

2) Mitigation — There are the activities that reduce the effects of disasters. →

1) Public Education & awareness.

ii) Hazard and vulnerability Assessment.

iii) Improved infra structure

iv) Information Campaign.

3) Preparedness stage:- It refers to measures taken to prepare for & reduce the effects of disasters. That is to predict the disasters.

i) National Emergency

ii) Tele Communication & response plan.

iii) Training & Exercises.

iv) Early warning.

v) Standard operating procedures.

20) Earthquake:- An earthquake is a violent, abrupt shaking of the ground, caused by movement between tectonic plates along a fault-line in the earth's crust. (2M)

Causes:- It is caused by a sudden slip-
- on a fault. Due to friction generated-
during the movement of tectonic plates. (8M)

→ when the stress on the edge overcomes the friction, there is an earthquake that releases energy in waves that travel through the earth's crust & cause the shaking.

Effect 1:- It includes

- i) Ground shaking
- ii) Surface faulting
- iii) Ground Failure.
- iv) Landslides &
- v) Tsunami as well.

It also causes great deal of damage to property, loss of life, economic loss, communication loss.

Relief Measures - The reaction time (or) response time is very important, when a disaster occurs. i) Relocating the victims.

ii) Rescue team evacuating the people from the place of disaster.

iii) Providing the basic necessities to the victims like water, food.

iv) providing shelter temporarily

v) providing psychological assistance to the victims after the disasters.