

**THE OPEN UNIVERSITY OF SRI LANKA  
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC  
ADMINISTRATION  
FINAL EXAMINATION –MAY 2010  
MCP – 2609 DISASTER MANAGEMENT  
DURATION : THREE (03) HOURS**



Date : 16<sup>TH</sup> MAY 2010

Time : 9.30 a.m – 12.30 p.m

**Answer four (4) questions including question number one (01)**

**01. Read the following passage and answer all the questions.**

There is no country, no community and no person who is immune to the impact of natural disasters. India is constantly challenged by natural hazards like floods, landslides in coastal and hilly regions, periodic droughts, earthquakes etc. Natural disasters not only cause fatalities and injuries but also result in infrastructure damage, substantial social & economic impact.

Natural disasters interrupt the society by claiming lives, creating victims, and destroying infrastructure facilities, at large. They lead to catastrophic failure such as sudden and complete failure of a major element or segment of the highway system that causes a disastrous impact on transportation services.

The physical damage to road infrastructure and the related hazards provide the beginning of an economic damage assessment. In our country, at present, policy-makers focus only on the physical damages or direct losses such as the repair or replacement cost for the damaged structures, roads etc.

These direct losses are easy to notice and observe, since they are directly caused by the incident. However, they are only part of the total losses that are caused by the disasters. From an economic perspective there are indirect costs too, associated with the damage caused by natural disasters like temporary unemployment, business interruptions, etc.

The existing Disaster Management approaches appear to be quite unstructured and are usually centralized in nature with the instructions flowing out through some sort of fixed hierarchy. These result in poor resource management and hence inefficiency. Since disaster themselves are unstructured in scope and as such cannot be managed centrally. There is a need for a user-centric decentralized independent approach, where in even the end user is empowered suitably for quick and effective results.

Planning for Disaster preparedness for the road infrastructure is mainly based on know-how of magnitude of damages in the past and those anticipated in the future. Preparation of hazard zonation maps is the first pre requisite in this regard. A promising tool for disaster management is the use of Geographical Information System (GIS) which can be used for storage, retrieval, mapping and analysis of geographic data. In the planning process GIS can be used to identify the damages assess them so that priorities for mitigation can be established. Earth observation satellites, as a means of remote sensing also make it possible to monitor environmental changes and natural processes to forecast disasters.

Disaster Management is thus, the continuous process by which all individuals, groups and communities manage hazards in an effort to avoid or minimize the impact of disasters resulting from hazards. Effective disaster management relies on thorough integration of emergency plans at all levels of government and non-government organizations. Activities at each level i.e. individual, group, community affect the other levels. Improving strategic infrastructure like protective mechanism of roads is a must and is an area of priority concern, to ensure sustainability of development and welfare of the area even after occurrence of a disaster.

**[Extracted from a Journal – Indian Highways – 2008]**

- (1) List down 4 natural hazards mentioned in the paragraph. **(4 marks)**
- (2) What kind of impact is generated by the infrastructure damages due to natural hazards? Give examples. **(6 marks)**
- (3) According to the author, what are the major features of present Disaster Management System in India? **(8 marks)**
- (4) What is the name of the management approach for effective disaster management suggested by the author? **(4 marks)**
- (5) "In general Disaster preparedness planning play a vital role in Disaster Management". Briefly comment on the above. **(8 marks)**
- (6) What are the new technological mitigation methods available in the world to risk reduction of various hazard events? **(4 marks)**

- (7) "Disaster Management must be a collective effort". Comment on this, based on the given information.

(6 marks)

(Total 40 marks)

**Answer any three (03) of the following. Each will carry 20 marks.**

**02**

- (i) Distinguish the terms given below with examples.
- Hazard and Disaster
  - Mitigation and preparedness,
  - Relief and Rehabilitation
- (ii) Illustrate disaster management cycle and explain specific activities needed to be carried out in each phase of the disaster management cycle concerning a natural hazard in Sri Lanka.

**03.**

- (i) Explain pro active approach of disaster management.
- (ii) What are the major functional areas needed to be considered in the proactive Disaster Management. Explain with examples.

**04.** Assume that your group is appointed as the Disaster Steering Committee of your company. Your committee is responsible for preparation of an organizational disaster preparedness plan.

- (i) Identify type of organization you belongs to and the different Hazards that can be occurred with in your organization.
- (ii) What are the vulnerability elements in your company/organization?
- (iii) What are the objectives of your preparedness plan and what are the activities to achieve selected objectives.
- (iv) Illustrate your preparedness plan in a table format.

- 05.**(i) Name three important phases of an emergency situation.
- (ii) List key functions of an "Emergency Operation Centre".
- (iii) Explain importance of evacuation planning in an emergency.
- (v) Explain potentiality of Incident Command System – ICS, in an emergency situation in Sri Lanka.

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