



THE PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY  
DEPARTMENT OF COMMUNICATION & DEVELOPMENT STUDIES

SEMESTER 1, 2020 EXAMINATION  
CD214 DISASTER AND RISK MANAGEMENT

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## QUESTION PAPER

EXAMINATION TIME: THREE (3) HOURS

SURNAME \_\_\_\_\_  
GIVEN NAME \_\_\_\_\_  
ID NUMBER \_\_\_\_\_  
DATE \_\_\_\_\_

### INSTRUCTIONS TO CANDIDATES:

1. Check that there are 8 different pages of this Examination Paper.
2. You have ten (10) minutes to skim through this Examination Paper.
3. This paper contains Five Parts.

SECTION: A – MULTIPLE CHOICES (15)

SECTION: B – MATCHING (15)

SECTION: C – COMPREHENSION (15)

SECTION: D – SHORT ANSWERS (20)

SECTION: E – SUMMARY WRITING (30)

TOTAL 95 MARKS

4. Answer ALL questions.
5. All answers must be written on the provided ANSWER SHEET ONLY.
6. Notes and notebooks are not allowed.
7. Mobile phone is prohibited in the examination room.

**DO NOT WRITE UNTIL YOU ARE TOLD TO START**

**SECTION A: MULTIPLE CHOICES (15 MARKS)**

For questions 1– 20 below, select the correct answers from the choices given. Write your answers on the **Answer Sheet** provided.

**QUESTION 1**

A radiation emergency from a nuclear blast is an example of what kind of disaster?

- A. Natural disaster
- B. Human-induced technological disaster
- C. Complex emergency disaster
- D. Natural technological disaster

**QUESTION 2**

Which of the following is not one of the main factors of causing natural disasters?

- A. Environmental degradation
- B. Oil spills
- C. Uneven distribution of the infrastructure
- D. Climate change

**QUESTION 3**

Which of the following is not an example of an indirect health effect?

- A. Psychological trauma
- B. Waterborne diseases
- C. Developing sore ulcers
- D. Leg injury

**QUESTION 4**

Which of the following activities takes place during the preparedness phase of a disaster cycle?

- A. Establishing partnerships
- B. Conducting epidemiologic studies
- C. Distributing basic supplies, food and water
- D. Repairing roads and collapsed structures

**QUESTION 5**

Which of the following activities takes place during the mitigation phase of a disaster cycle?

- A. Conduct hazard risk assessment
- B. Conduct epidemiologic studies
- C. Conduct inventory of available resources
- D. Make referrals to those seriously affected

**QUESTION 6**

During which phase of a disaster cycle should you conduct surveillance of health problems?

- A. Preparedness phase
- B. Response phase
- C. Recovery phase
- D. Mitigation phase

**QUESTION 7**

Which of the following statements is true about volcanoes? A volcano is:

- A. A natural disaster
- B. A human induced disaster
- C. A disaster
- D. A hazard

**QUESTION 8**

During which disaster cycle should vulnerability and capacity assessment be conducted?

- A. Preparedness phase
- B. Response phase
- C. Recovery phase
- D. Mitigation phase

**QUESTION 9**

Which of the following does not describe your role as an epidemiologist?

- A. Identify disaster related outcomes.
- B. Conduct rapid needs assessments.
- C. Determine risk factors for affected populations.
- D. Rebuild damaged infrastructure and restore health system.

**QUESTION 10**

What is the name of an instrument that measures motions of the ground including those of seismic waves generated by earthquakes and volcanic eruptions?

- A. Seismograph
- B. Seismogram
- C. Seismometer
- D. Seismology

**QUESTION 11**

The actions taken to return the community to normal following a disaster refers to:

- A. Preparation of a community
- B. Rescue a community
- C. Recovery of a community
- D. Awareness of a community

**QUESTION 12**

A list of activities taken by people to prevent/mitigate the loss of life, livelihoods and property in case a disaster occurs refers to:

- A. Emergency plan
- B. Contingency plan
- C. Recovery plan
- D. Awareness plan

**QUESTION 13**

A possible source of danger which may cause injury, harm or death refers to which concept?

- A. Hazard
- B. Emergency
- C. Risk
- D. Threat

**QUESTION 14**

Waterborne diseases are typical examples of \_\_\_\_\_ health effects of a disaster. Which of the following words correctly fills the above space?

- A. Vulnerable
- B. Physical
- C. Direct
- D. Indirect

**QUESTION 15**

Garden soil erosions leading to sever landslides and extreme bush fires are examples of which types of disasters?

- A. Natural disasters
- B. Human induced disasters
- C. Complex disasters
- D. Secondary disasters

**SECTION B:****MATCHING****(15 MARKS)**

Match the numbered, and mixed up descriptions/definitions on the right with their correct concepts on the left. Write the description/definition number on the first column beside the correct concept. Write your answer on the **Answer Sheet** provided.

## QUESTION 16

Your Answer	Words	No	Descriptions/Definitions
	response	1	Ideas and practices for reducing calamity threats through systematic efforts by analysing and managing the causal factors of disasters.
	rapid needs assessment	2	Restoration and improvement where appropriate of facilities, livelihoods and living conditions of disaster-affected communities including efforts to reduce disaster risk factors.
	resilience	3	A method of determining the nature and extent of danger by analysing potential hazards and evaluating conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment.
	disaster risk reduction	4	The provisions of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety, and meet the basic subsistence.
	epidemiology	5	The act of specifying and identifying locations at high risk for a specific hazard.
	recovery	6	A collection of techniques (e.g., epidemiological, statistical, anthropological) designed to identify quickly the basic and health needs of a community.
	vulnerability analysis	7	Organization and control of resources and responsibilities to deal with immediate crises, in preparedness, response and initial recovery steps.
	direct health effect	8	Identified risks and population vulnerabilities are carefully reviewed to develop strategies to prevent reoccurrence of the same type of disaster in the future or limit the effect from such disasters.
	preparedness	9	A public health practice used to assess health effects, monitor the effectiveness of relief efforts, respond to public concerns and media inquiries, and facilitate planning for future disasters.
	reconstruction	10	An adverse health effect caused by the actual physical forces of a disaster, such as a drowning or injury from flying debris.
	emergency management	11	The analysis of the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.
	hazard mapping disaster	12	The use of epidemiology to measure the short- and long-term health effects of disasters and to predict the consequences of future disasters.
	disaster surveillance	13	Measures taken in advance by communities and individuals to effectively predict, respond to, and recover from, the impacts of likely or current hazard or emergency conditions.
	risk assessment	14	The ability of a system, community or society exposed to hazard to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.
	mitigation	15	The restoration and improvement where possible of facilities, livelihoods and living conditions of disaster affected communities including efforts to reduce disaster risk factor.

**SECTION C: COMPREHENSION (15 MARKS)**

Read the passage below on '*Risk, hazard and vulnerability relationships*' and select the correct words from the given list at the top to fill in the blank spaces. Each word is to be used **once** only. Leave out the words that do not belong. Write your answers on the **Answer Sheet** provided.

**QUESTION 17****Risk, hazard and vulnerability relationships**

- *vulnerability, reduced, hazardous, outcome, hazard, disaster, prioritisation, widespread, risks, interaction, management, identification, scale, assessment, hazards, reduce* -

Risk is the probability that a \_\_\_\_1\_\_\_\_ event will occur and cause damages or losses at a given place and time. It is a combination of the possibility of a hazard happening, the \_\_\_\_2\_\_\_\_ of the target system to the hazard and the \_\_\_\_3\_\_\_\_ of damage that can occur. \_\_\_\_4\_\_\_\_ occurs when a \_\_\_\_5\_\_\_\_ event results in large scale or \_\_\_\_6\_\_\_\_ damages or disruptions. Since risk is a probability, it can be calculated from past events.

We can draw a conclusion that disaster management will involve \_\_\_\_7\_\_\_\_ and \_\_\_\_8\_\_\_\_ of \_\_\_\_9\_\_\_\_, reduction of and \_\_\_\_10\_\_\_\_ of risks in order to \_\_\_\_11\_\_\_\_ or avoid the occurrence and or the effects of disasters. Remember that a disaster is the \_\_\_\_12\_\_\_\_ of poorly managed \_\_\_\_13\_\_\_\_ arising from the \_\_\_\_14\_\_\_\_ of hazards and vulnerability. Thus, by properly managing risks, disasters can be \_\_\_\_15\_\_\_\_. Hazards are bound to exist, but vulnerability and risks can be reduced and managed.

**SECTION D: SHORT ANSWER QUESTIONS (20 MARKS)**

Read and understand each of the instructions given below and carefully answer the questions that follow. Write your answers on the **Answer Sheet** provided.

**QUESTION 18**

From the single sentence summary below, identify the three fundamentals of disaster stated and correctly write them out (*add your own words too*). (3)

**A disaster is a serious disruption of functioning of a society, causing widespread human, material or environmental losses that exceeds the local capacity to respond and calls for external assistances.**

- a) \_\_\_\_\_  
 b) \_\_\_\_\_  
 c) \_\_\_\_\_

**QUESTION 19**

Disasters are classified based on two main characteristics. What are the two? (2)

- a) \_\_\_\_\_  
 b) \_\_\_\_\_

**QUESTION 20**

A specific disaster occurring may aggravate a secondary disaster that increases the impact. Give a typical example of such cases. (3)

A classic example is \_\_\_\_\_  
\_\_\_\_\_

**QUESTION 21**

Describe three main negative consequences of any type of a disaster. (3)

- a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_

**QUESTION 22**

List three most vulnerable groups of people who suffer more than others in a disaster? (3)

- a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_

**QUESTION 23**

Describe the differences between hazard and risk. (2)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**QUESTION 24**

Describe the differences between vulnerability and capacity. (2)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**QUESTION 25**

Explain the differences between Human-Induced Disaster and Natural Disaster. (2)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



