*(University of Choice)*

# MASINDE MULIRO UNIVERSITY OF

# SCIENCE AND TECHNOLOGY

# (MMUST)

## MAIN CAMPUS

## UNIVERSITY EXAMINATIONS

## 2021/2022 ACADEMIC YEAR

## FIRST YEAR SECOND SEMESTER EXAMINATIONS

## FOR THE DEGREE

## OF

## MASTER OF SCIENCE IN DASTER MANAGEMENT AND SUSTAINABLE DEVELOPEMENT

**COURSE CODE:**     **DSM 802**

**COURSE TITLE:**     **POST DISASTER RECONSTRUCTION**

**DATE: 22/04/2022**            **TIME: 9 – 12NOON**

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## INSTRUCTIONS TO CANDIDATES

This Paper Contains **FIVE** Questions
Answer any **FOUR** questions

**TIME:**   3 Hours

## MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

## Question one

a) Explain the meaning of 'disaster recovery'. **(1 Marks)**

b) Using the case of COVID -19 crisis discuss your understanding of the concept of 'building – back – better' as used in disaster recovery and reconstruction. **(10 Marks)**

c) Explain how development:
   (i) can cause disasters **(3 Marks)**
   (ii) is a product of disasters **(3 marks)**

d) Give a detailed account on three macro-economic variables that would be affected by disasters.

**(3 marks)**

## Question two

a) Differentiate between recovery and reconstruction. **(4 Marks)**

b) Explain the objectives of recovery. **(6 Marks)**

c) You have been appointed by the national government to lead a flood recovery process in Tana River County following the heavy rainfall that pounded the county and surrounding areas from March to July 2018. Outline the opportunities you can seize to ensure recovery is grounded from the first relief interventions while ensuring the risky conditions are not reproduced during the process. **(10 Marks)**

## Question three

a) Evaluate the characteristics of hazards that would cause disasters in cities and urban areas in Kenya. **(8 Marks)**

b) Vulnerability encompasses the conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. Discuss the main socio economic characteristics of urban dwellers that make then susceptible to the damaging effect of disasters. **(12 marks)**

## Question four

The table below is a summary of typical damages, losses and needs by sector following the 200-2011 drought in Kenya. Use the table to answer the questions that follow.

| Sector | Impacts (damage and losses0 | Needs (Recovery and Reconstruction) | DRR needs |
|---|---|---|---|
| Agriculture | 121,104.1 | 5,048.8 | 13,736.8 |
| Livestock | 699,336.2 | 106,379 | 85,103.0 |
| Fisheries | 4,163.6 | 1,160.3 | 2,991.2 |
| Agro Industry | 7,159.6 | 0 | 0 |
| Health | 4,745.7 | 5,099 | 0 |
| Nutrition | 6,699.4 | 225.1 | 130.9 |
| Education | 3,979.7 | 645.8 | 3,592.1 |
| Energy | 32,392.3 | 13,000 | 0 |
| Water & Sanitation | 88,203 | 17,268.3 | 78,627.3 |
| Environment and Tourism, Forestry, Wildlife | 784.6 | 7,387.9 | 647.5 |
| Total | | | |

(a) From the table above, compute the total impacts, reconstruction and recovery and DRR needs following the 2008-2011 drought in Kenya.   **(6 marks)**

(b) Identify the sector, which suffered the highest losses and give the estimated losses.   **(2 marks)**

(c) Explain the importance of information obtained from the damages and losses assessment.   **(3 Marks)**

(d) Explain the importance of Disaster Risk Reduction (DRR) needs with regard to reconstruction and sustainable development.   **(3 Marks)**

(e) Discuss the potential sources for financing disaster recovery and reconstruction.   **(6 Marks)**


*Question five*

a) Examine the financial challenges that would face disaster recovery and reconstruction in developing countries. **(6 Marks)**

b) Outline the role of the following stakeholders in disaster recovery and reconstruction:
   i. Private sector **(2 Marks)**
   ii. Professional associations **(3 Marks)**
   iii. World Bank and other development partners **(3 Marks)**
   iv. UN systems ( **3 Marks)**
   v. Governments **(3 Marks)**