

UNIVERSITY OF ESWATINI

DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING

MAIN EXAMINATION-DECEMBER 2018

B.A., BASS, B.Ed. & B.Sc.

TITLE OF PAPER: HAZARDS, RISKS AND VULNERABILITY ANALYSES

COURSE CODE:

GEP 419

TIME ALLOWED:

THREE (3) HOURS

INSTRUCTIONS:

1. ANSWER THREE (3) QUESTIONS

2. QUESTION 1 IS COMPULSORY

3. ANSWER ANY TWO QUESTIONS FROM SECTION B

4. WHERE APPROPRIATE, ILLUSTRATE YOUR ANSWER
WITH DIAGRAMS AND EXAMPLES

MARKS ALLOCATION:

QUESTION ONE (1) CARRIES 40 MARKS THE REST OF THE
QUESTIONS CARRY 30 MARKS EACH.

THIS QUESTION PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BEEN
GRANTED BY THE INVIGILATOR

GEP 419 HAZARDS, RISKS AND VULNERABILITY ANALYSES – DECEMBER 2018

SECTION A: COMPULSORY

QUESTION 1

- a) Using examples define and describe the different classes of environmental hazards. (12 marks)
- b) Explain what is meant by differential vulnerability? (8 marks)
- c) Use examples to describe extrinsic and intrinsic environmental vulnerability of an ecosystem. (8 marks)
- d) Discuss the difference between qualitative and quantitative risk assessments. (12 marks)

SECTION B: ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION 2

Use the diagram provided to describe and discuss the complexities of conducting vulnerability analyses in coupled systems.

QUESTION 3

Discuss the stages of a disaster management cycle and explain why a disaster management plan is important in emergency situations.

QUESTION 4

- a) Discuss the importance of stakeholder networks in urban emergency management. (20 marks)
- b) Discuss how rural emergency management is different from urban emergency management. (10 marks)

QUESTION 5

Discuss what is meant by everyday risks and risk accumulation in urban risk management planning. (30 Marks)

Dynamics
cross-scale
in place
beyond place

System oriented approach
Scales, functional and temporal scales

Region
Place

Human Influences outside the Place

Macro political economy, institutions,
global trends and transitions

Variability & change
in human conditions

Exposure

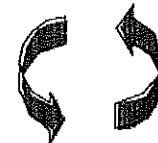
Interactions of hazards
(perturbations, stresses,
stressors)

Characteristics &
components of exposure

Vulnerability
Sensitivity

Resilience

Variability & change
in environmental
conditions

Human
conditions

Environmental
conditions

Coping/
response

Impact/
response

Adjustment &
adaptation/
response

Impact/
responses

Adjustment &
adaptation/
response

Environmental Influences outside the Place

State of Biosphere; State of Nature
Global Environmental Changes

Drivers/causes

Consequences