



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
WATER RESOURCE AND ENVIRONMENTAL MANAGEMENT
SEMESTER 2016/2017 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: PES 3323

COURSE TITLE: SCIENTIFIC AND ECONOMIC INSTRUMENTS FOR ENVIRONMENTAL MANAGEMENT

EXAM VENUE:

STREAM: SPATIAL PLANNING

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer question 1 (compulsory) and ANY other 2 questions.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

Section A

1. (a) Define the following:
 - (i) Environmental Management (2 marks)
 - (ii) Environmental Management Systems (4 marks)
- (b) Explain **three** ways in which Environmental Assessment (EA) can be used in appraising projects, and programs (6 marks)
- (c) Indicate **five** comparative features of project led Environmental Assessment and Strategic Environmental Assessment (10 marks)
- (d) Highlight **five** approaches to Environmental Valuation (10 marks)

Section B

2. (a) Explain **five** key performance areas on Environmental Management (5 marks)
 - (b) Discuss **three** Environmental Instruments and justify their relevance on management of environment (15 marks)
3. (a) Define Strategic Environmental Assessment (SEA) (2 marks)
 - (b) Discuss the benefits of SEA (10 marks)
 - (c) Discuss **four** stages of SEA (8 marks)
4. (a) Define Biological Diversity (BD) (2 marks)
 - (b) Outline the importance of BD (6 marks)
 - (c) Discuss the causes and consequences of habitat loss (12 marks)
5. (a) Discuss your understanding of Payment for Ecological Services (PES) (1 mark)
 - (b) Outline **three** broad types of PES (9 marks)
 - (c) Discuss **five** key principles underpinning PES (10 marks)