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**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF SPATIAL PLANNING**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS IN SPATIAL PLANNING**

 **SEMESTER2 2016/2017 ACADEMIC YEAR**

**CENTRE: MAIN CAMPUS**

**COURSE CODE: PSP 3427**

**COURSE TITLE: GREEN AND BROWN AGENDA IN PLANNING**

**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.**

Q1 a. Define the following terms

1. Brown Agenda (3 marks)
2. Agenda 21 (3 marks)
3. Environmental mainstreaming (3 marks)

 b. (i) List three green growth outcomes (3 marks)

 (ii) What does improving eco-efficiency in urban centers entail? (4 marks)

 (iii) Outline **FIVE** undesirable impacts of urban sprawl (10 marks)

 c. Differentiate ex-ante evaluation and ex-post evaluation in urban projects (4 marks)

Q2 a. Discuss **FIVE** key principles of sustainability (10 marks)

 b. Outline **FIVE** international treaties focusing on sustainable development (10 marks)

Q3. a. Discuss five issues of Green agenda (10 marks)

 b. Discuss any **FIVE** Green agenda choices (10 marks)

Q4. a. What is renewable energy technology? (2 marks)

 b. Discuss the benefits of Renewable Energy Technologies (RETs) (6 marks)

 c. Discuss the barriers to Renewable Energy Technologies (RETs) (6 marks)

 d. Outline how the barriers above can be addressed (6 marks)

Q5. a. Discuss seven common environmental problems in urban centers (14 marks)

 b. Write short notes on three options for future urban centers aiming at transforming

 them into eco-urban centers (6 marks)