

**UNIVERSITY OF SWAZILAND**  
**DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND**  
**PLANNING**

**SUPPLEMENTARY EXAMINATION, JULY 2012**

**B.A., BSc., BASS, B. Ed.**

**TITLE OF PAPER: INTRODUCTION TO THE PHYSICAL  
ENVIRONMENT**

**COURSE NUMBER: GEP 111**

**TIME ALLOWED: THREE (3) HOURS**

**INSTRUCTIONS:**

- 1. ANSWER THREE QUESTIONS**
- 2. QUESTION 1 IS COMPULSORY**
- 3. ILLUSTRATE YOUR ANSWERS WITH  
EXAMPLES AND CLEARLY DRAWN DIAGRAMS  
WHERE APPROPRIATE**

**ALLOCATION OF MARKS: QUESTION 1 (COMPULSORY) CARRIES  
40 MARKS WHILE THE REST CARRY 30  
MARKS EACH**

**THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION IS GRANTED  
BY THE INVIGILATOR**

**GEP 111: INTRO TO THE PHYS. ENVIRO, JULY 2012****SECTION A: TECHNIQUES AND SKILLS  
(COMPULSORY)****Question 1**

(a) Define the following:

- (i) A map
- (ii) Conjugate principal point
- (iii) Satellite image
- (iv) Map projection (8 marks)

(b) If the time is 12:00 midnight at the Greenwich Meridian, at what longitude will it be;

- (i) 5:00 pm
- (ii) 11:00 pm
- (iii) 12:00 noon
- (v) 0800 hrs (8 marks)

(c) Using the appropriate representation, display the data presented on Table 1 below. (10 marks)(d) Outline the steps involved in constructing a pie chart. (14 marks)**[40 Marks]****Table 1: Foreign tourists from six countries visiting Swaziland in 2011**

Country of origin	Number of tourists
Britain	123 700
Germany	49 924
The Netherlands	15 142
France	14 654
USA	48 725
Australia	15 104

Source: Hypothetical

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**SECTION B: THEORY  
(ANSWER ANY TWO QUESTIONS)**

**Question 2:**

Name all the known planets of the solar system and discuss the physical properties of terrestrial and gaseous planets respectively.

**[30 Marks]**

**Question 3:**

Erosion and weathering are permanent processes since the formation of the Earth. Discuss the obstacle why the solid Earth's surface materials have not yet disappeared into the oceans.

**[30 Marks]**

**Question 4:**

Discuss the motions of tides in the oceans and how tides contribute to the development of landforms.

**[30 Marks]**

**Question 5:**

Discuss why in the atmosphere currently the ozone layer is threatened, and how it may in future be better protected.

**[30 Marks]**