

**GGH1502**

( 499599)

May/June 2012

**WORLD ISSUES: A GEOGRAPHICAL PERSPECTIVE**

Duration 2 Hours

100 Marks

**EXAMINERS**

FIRST

SECOND

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MR DW HEDDING

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This paper consists of 11 pages, plus instructions to complete a mark-reading sheet

**IMPORTANT:**

- 1 After completing this examination paper, you should hand in the following
  - one mark-reading sheet for Section A (**Insert the mark-reading sheet in the front of your examination book.**)
  - your examination book
- 2 Make sure that your student number and all other required details – including the unique number for the examination paper – are written on both your examination book and on the mark-reading sheet. The unique number for module **GGH1502** is **499599**
- 3 Marks will be allocated as follows
  - Section A 40 marks
  - Section B 60 marks
- 4 We recommend that you use the available time as follows
  - Section A (30 multiple-choice questions –  $30 \times 1,22 = 40$  marks) 40 minutes (It is therefore of extreme importance that you do not spend too much time on any of the questions )
  - Section B (four questions) 80 minutes
- 5 Read the instructions at the beginning of each section and follow them carefully

**[TURN OVER]**

**SECTION A****Instructions**

- Answer all the questions
- Use an HB pencil to mark your answers on the mark-reading sheet
- Remember to enter your student number and the unique number of the examination paper on the mark-reading sheet

1 Which tropical rainforest in the southern region of the Sahel was severely impacted upon as a result of an increase in population numbers and agricultural activities?

- (1) Nigerian tropical rainforest
- (2) Sahel tropical rainforest
- (3) Baben Rafi rainforest
- (4) Ryutaro rainforest

2 Which of these regions in figure 1 would you describe as drought-stricken?

- (1) 1 and 5
- (2) 1 and 2
- (3) 3 and 4
- (4) 3 and 5

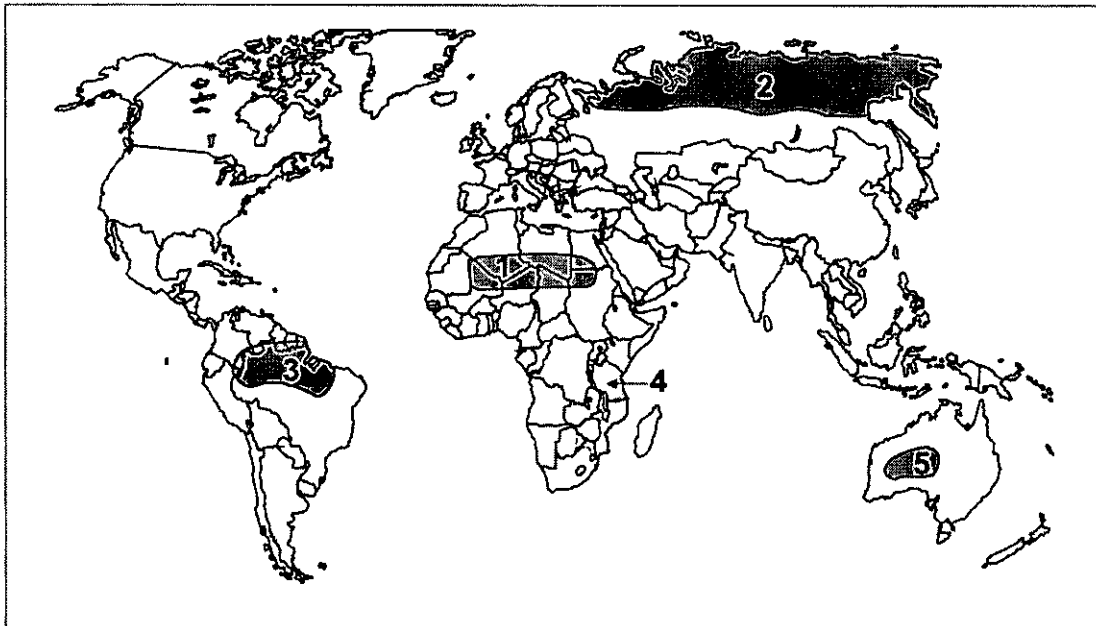


Figure 1 Drought stricken areas

3 Which **one** of the following statements reflects our current perception regarding our oceans?

- (1) The dumping of waste is problematic as it disrupts ocean currents
- (2) Conventions regulating the dumping of waste into the oceans are unnecessary
- (3) The ocean is huge and can absorb any amount of waste
- (4) Oceans cover a relatively small part of the earth's surface

- 4 The oceans occupy \_\_\_\_\_ of the earth's surface and contain \_\_\_\_\_ of the earth's water
- (1) 74%, 87%
  - (2) 71%, 97%
  - (3) 97%, 71%
  - (4) 87%, 74%
- 5 Runoff containing fertilisers and pesticides from a field is considered as a \_\_\_\_\_ source of pollution
- (1) non-point
  - (2) point
  - (3) defined
  - (4) controlled
- 6 The Rietvlei Nature Reserve uses \_\_\_\_\_ to identify plants and \_\_\_\_\_ to keep up to date regarding the burning of grassland and the management of the reserve
- (1) road maps, photographs
  - (2) resource maps, statistics
  - (3) GIS, statistics
  - (4) aerial photographs, topographical maps
- 7 Waste is one of South Africa's biggest problems. South Africans generate approximately \_\_\_\_\_ of litter and \_\_\_\_\_ of packaging material per year
- (1) 200 000 kg, 1,3 million kg
  - (2) 200 000 tonnes, 1,3 million tonnes
  - (3) 200 000 kg, 1,3 million tonnes
  - (4) 200 000 tonnes, 1 3 million kg
- 8 An undesirable by-product, emission, or residue produced by any process or activity, that has been discarded, accumulated or stored for the purpose of discarding or processing, is defined as \_\_\_\_\_
- (1) glass
  - (2) recycled material
  - (3) plastic
  - (4) waste
- 9 Which biome is presented in figure 2 on the next page?
- (1) fynbos/chaparral
  - (2) savannah
  - (3) desert
  - (4) tundra
- 10 Which biome is presented in figure 3 on the next page?
- (1) tropical rainforest
  - (2) grassland
  - (3) deserts
  - (4) coniferous forest



Figure 2 Biome



Figure 3 Biome

11 The hydrosphere is one of the subsystems of the natural world. Which of the following are included in this subsystem?

- (a) oceans
- (b) atmosphere
- (c) ice
- (d) soil and rocks

The **correct** combination of alternatives is

- (1) (a) and (b)
- (2) (a) and (d)
- (3) (a) and (c)
- (4) (b) and (d)

12 The earth's atmosphere is a mixture of gases and extends to a height of approximately \_\_\_\_\_ above sea level.

- (1) 1 000 km
- (2) 480 km
- (3) 500 m
- (4) 40 000 m

13 A system that includes all biotic and abiotic factors and functions as a unit in an area is referred to as a/an \_\_\_\_\_.

- (1) subsystem
- (2) physical system
- (3) natural system
- (4) ecosystem

14 The earth is \_\_\_\_\_ years old and *homo sapiens* (modern humans) have been living on it for between \_\_\_\_\_ years.

- (1) 136 million, one and two million
- (2) 4 600 million, 100 and 200 thousand
- (3) 4 600 thousand, two and five thousand
- (4) 6 500 million, two and three million

15 Identify the main causes of deforestation in tropical Africa.

- (a) mining
- (b) logging
- (c) agriculture
- (d) desertification

The **correct** combination of alternatives is

- (1) (a), (c) and (d)
- (2) (a) and (d)
- (3) (b), (c) and (d)
- (4) (b) and (c)

16 Identify the specific action that does not cause environmental issues directly

- (1) modification of natural distribution of vegetation and animals
- (2) overuse of soils
- (3) pollution of water and air
- (4) global population growth

17 Identify the driving forces of humankind's underlying behaviour

- (a) population
- (b) human agency
- (c) technology
- (d) sociocultural organisation
- (e) sociopolitical structures

The **correct** combination of alternatives is

- (1) (a) and (c)
- (2) (a), (b) and (c)
- (3) (a), (c) and (d)
- (4) (b) and (e)

18 Identify the mitigating forces of humankind's underlying behaviour

- (a) market adjustment
- (b) informal social regulation
- (c) economic structures
- (d) authoritative regulation
- (e) human agency

The **correct** combination of alternatives is

- (1) (a) and (b)
- (2) (a) and (d)
- (3) (a), (b) and (d)
- (4) (b), (c) and (e)

19 Which one of the following perspectives or theories states that population growth will outstrip food production and lead to famine, conflict and human misery for the poor?

- (1) Brown theory
- (2) Green perspective
- (3) Boserup theory
- (4) Malthusian perspective

20 Identify the three priorities of sustainable development

- (a) maintenance of ecological processes
- (b) sustainable use of resources
- (c) integration of economic systems
- (d) maintenance of genetic diversity
- (e) maintenance of economic and political systems

The **correct** combination of alternatives is

- (1) (a), (b) and (c)
- (2) (a), (b) and (d)
- (3) (a), (b) and (e)
- (4) (b), (c) and (d)

21 The guiding principles of sustainability, according to the deep ecology worldview, include the following

- (a) natural harmony
- (b) unlimited resources
- (c) consumerism
- (d) recycling
- (e) simple material needs

The **correct** combination of alternatives is

- (1) (a), (b) and (c)
- (2) (a), (b) and (d)
- (3) (a), (b) and (e)
- (4) (a), (d) and (e)

22 Identify the benefits that tropical deforestation provides for human societies

- (a) food
- (b) biodiversity
- (c) timber
- (d) decrease in diseases such as malaria
- (e) Jobs

The **correct** combination of alternatives is

- (1) (a) and (b)
- (2) (a) and (c)
- (3) (a), (c) and (e)
- (4) (b), (c) and (d)

23 Identify the effects associated with deforestation

- (b) enhanced erosion
- (c) decrease in flooding
- (d) salinisation of land
- (e) increase in rainfall

The **correct** combination of alternatives is

- (1) (a) and (b)
- (2) (a), (b) and (d)
- (3) (b) and (c)
- (4) (c), (d) and (e)

24 Which one of the following, related to big dams, is **false**?

- (1) People have constructed dams to manage water resources for the past 5 000 years
- (2) Dams are built to control floods and for irrigation
- (3) Dams store water for a short amount of time and generate hydro-electricity
- (4) The construction of dams offers protection from floods and droughts

25 Distinguish **three benefits** associated with big dams

- (a) impact the biodiversity only in a positive way
- (b) supply irrigation for crops
- (c) guarantee water security
- (d) provides recreational opportunities
- (e) generate electricity

The **correct** combination of alternatives is

- (1) (a), (b) and (c)
- (2) (a), (c) and (d)
- (3) (b), (c) and (d)
- (4) (b), (d) and (e)

26 Which one of the following statements related to the earth's past climate is **true**?

- (1) The Pleistocene alternated between warm glacial and cold interglacial periods
- (2) Our knowledge of the earth's climate over long time periods is derived from proxy indicators
- (3) Explaining the changes in the earth's climate is quite simple
- (4) The first evidence of the existence of former ice ages came from tectonic landforms



27 Identify mechanisms of human-induced climatic change

- (a) direct inputs of gasses and aerosols
- (b) modification of land surfaces by deforestation
- (c) disturbance of land surfaces by earthquakes
- (d) alterations to the oceans through fresh water diversion

The **correct** combination of alternatives is

- (1) (a), (b) and (c)
- (2) (a), (b) and (d)
- (3) (b), (c) and (d)
- (4) (c) and (d)

28 The reflectivity of a surface to sunlight is referred to as

- (1) surface reflectivity
- (2) ozone reflectivity
- (3) albedo
- (4) atmosphere reflectivity

29 Which one of the following statements related to acid rain is **true**?

- (1) Acid rain is evenly distributed across the world
- (2) The distribution of acid rain can be contained within political boundaries
- (3) Tolerance of fish for water with higher than normal acid levels varies from species to species
- (4) Acid rain causes an increase in lichens and mosses in industrialised regions

30 The ability of an ecosystem to neutralise incoming acids is referred to as the

- (1) buffering capacity
- (2) threshold capacity
- (3) critical capacity
- (4) dilution capacity

**[TOTAL FOR SECTION A: 40]**

**[TURN OVER]**

**SECTION B****ANSWER ALL THE QUESTIONS.****Question 1**

Study **figures 4 and 5** on the next page and answer the questions that follow

- 1 1 Study **figure 4**, identify the habitat and name one country in which it occurs (2)
- 1 2 Study **figure 5** and explain how this area has been affected by humans (2)
- 1 3 Explain how mangroves are destroyed by humans and by natural phenomena and specify the environmental and social impacts thereof (11)
- [15]**

**Question 2**

Classify the impacts that are associated with the construction of big dams by grouping them under the two broad categories, namely environmental impacts and social impacts Draw a table to illustrate your answer and include one example

**[15]**

**Question 3**

- 3 1 Define environmental degradation and describe the relationship between technology and environmental degradation Include examples in your answer (5)
- 3 2 Explain how economical, political and social values influence environmental change Give four examples to support your answer (10)

**[15]**

**Question 4**

Study **figure 6** on the next page and answer the questions that follow

- 4 1 Identify the missing information in **figure 6** Follow the numbering system (1–5) in the figure when you give your answers (5)
- 4 2 Discuss the criteria that are necessary for the successful implementation of sustainable development in terms of inputs and outputs according to the three cycles in **figure 6** (A, B and C) (10)

**[15]**

**[TURN OVER]**



Figure 4: World map of a habitat

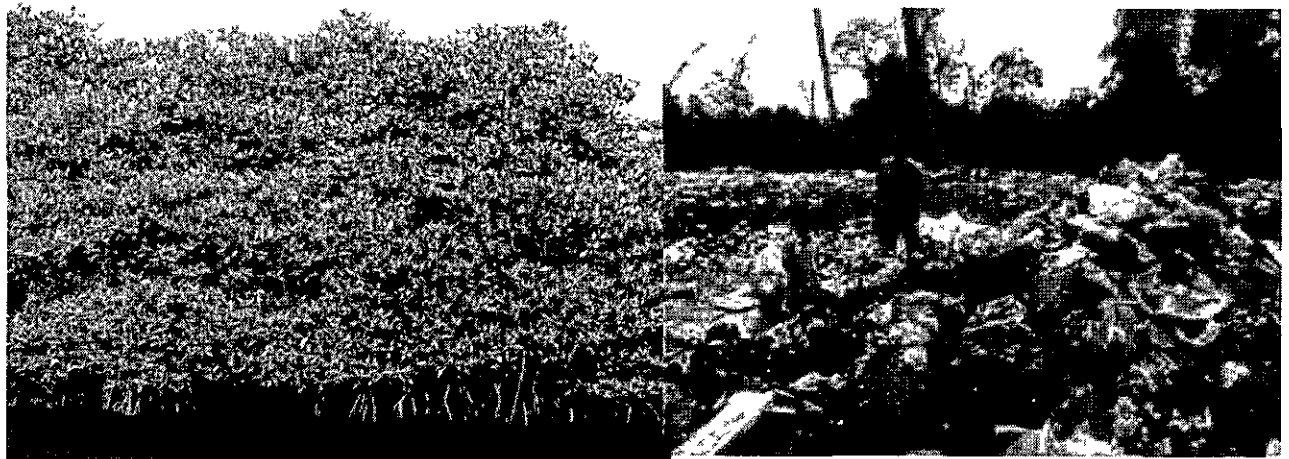


Figure 5: A habitat affected by humans (Horan 2010)

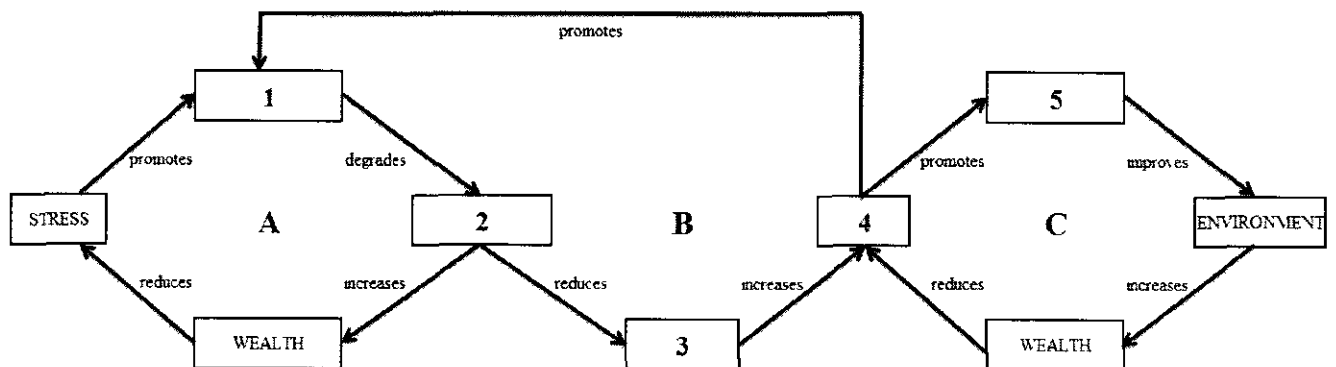


Figure 6: The three cycles illustrating the relationships between modes of development and the environment (Middleton 2008)

TOTAL FOR SECTION B: 60]  
[TOTAL FOR PAPER: 100]

PART 1 (GENERAL/ALGEMEEN) DEEL 1

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INITIALS AND SURNAME  
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For use by examination invigilator  
Vir gebruik deur eksamenopsiener

- IMPORTANT**
- 1 USE ONLY AN HB PENCIL TO COMPLETE THIS SHEET
  - 2 MARK LIKE THIS ➡
  - 3 CHECK THAT YOUR INITIALS AND SURNAME HAS BEEN FILLED IN CORRECTLY
  - 4 ENTER YOUR STUDENT NUMBER FROM LEFT TO RIGHT
  - 5 CHECK THAT YOUR STUDENT NUMBER HAS BEEN FILLED IN CORRECTLY
  - 6 CHECK THAT THE UNIQUE NUMBER HAS BEEN FILLED IN CORRECTLY
  - 7 CHECK THAT ONLY ONE ANSWER PER QUESTION HAS BEEN MARKED
  - 8 DO NOT FOLD

- BELANGRIK**
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PART 2 (ANSWERS/ANTWOORDE) DEEL 2

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Specimen only