Education and Sport Development

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NORTH WEST PROVINCE

PROVINCIAL ASSESSMENT

GRADE 11

GEOGRAPHY P1

JUNE 2018

MARKS: 225

TIME: 3hours

This question paper consists of 7 pages and 10-page annexure.

NSC – Grade 11

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO questions.
2. Answer ALL questions.
3. All the diagrams are included in the ANNEXURE.
4. Leave a line between subsections of questions answered.
5. Start EACH question at the top of a NEW page.
6. Number the answers correctly according to the numbering system used in this question paper.
7. Number the answers in the centre of the line.
8. Do NOT write in the margins of the ANSWER BOOK.
9. Illustrate your answers with labelled diagrams, where possible.
10. Write neatly and legibly.

SECTION A: ATMOSPHERE AND GEOMORPHOLOGY

Answer all the TWO questions from this section.

QUESTION 1

1.1 Refer FIGURE 1.1, showing major pressure belts and wind system.

1.1.1 Name the pressure belt South Africa is located in.

1.1.2 State the force that deflects the southeast trade winds to the left in the southern hemisphere.

1.1.3 What type of pressure is experienced at poles?

1.1.4 Is the 0^0 latitude a low or high pressure?

1.1.5 Which winds converge at the equator?

1.1.6 Name the winds that diverge from 30^0 N/S latitude.

1.1.7 Which winds blow from the 90^0 N/S latitude to 60^0 N/S latitude? (7 x 1) (7)

1.2 Indicate whether each of the following statements are **TRUE or FALSE.** Write only **True or False** next to the question number (1.2.1–1.2.8) in the ANSWER BOOK, for example 1.2.9 False.

1.2.1 Landscapes that are more rugged and angular are found in arid areas.

1.2.2 Weathering is the removal of valuable top soil.

1.2.3 Pediplain is the gently undulating landscape.

1.2.4 Dolerite is dark grey or black in colour.

1.2.5 Coastal plain is an area of rugged, high-lying land next to the sea.

1.2.6 Knickpoint is an area between talus and pediment

1.2.7 Mudflow is the slow flow of mud debris downslope.

1.2.8 Slump is associated with mass movement (8 x 1) (8)

1.3 Study FIGURE 1.3 showing. drought and desertification

1.3.1 Desribe the term *drough*t. (1 x 1) (1)

1.3.2 Describe THREE causes of droughts. (3 x 2) (6)

1.3.3 Why are developing countries more vulnerable to drought than developed countries? (2 x 2) (4)

1.3.4 Africa urgently need to address the problem of drought. In a paragraph of approximately EIGHT lines, describe on how to sustainably reduce the impacts of drought. (4 x 2) (8)

1.4 Refer FIGURE 1.4 showing case study on landslides.

1.4.1 Describe the term *landslide* (1 x 2) (2)

1.4.2 Where do landslides generally occur? (1 x 2) (2)

1.4.3 Describe THREE impacts of landslide on people and environment (3 x 2) (6)

1.4.4 In a paragraph of approximately EIGHT lines, explain the strategies that can be used to prevent, or minimise the effects of mass movement. (4 x 2) (8)

1.5 Study FIGURE 1.5 showing föhn wind.

1.5.1 Describe the term *föhn wind*. (1 x 1) (1)

1.5.2 Describe THREE consequences of föhn wind. (3 x 2) (6)

1.5.3 Describe how föhn wind develop. (3 x 2) (6)

1.6 Study FIGURE 1.6 showing landforms.

1.6.1 Identify the features **A**, **B**, and **C** respectively. (3 x 2) (6)

1.6.2 In which area of South Africa do we find these landscapes? (1 x 2) (2)

1.6.3 Describe the similarity between landform **A** and **B**? (1 x 2) (2)

1.6.4 Describe the significance of the landforms in FIGURE 1.6. (3 x 2) (6)

1.7 Study FIGURE 1.7 showing landforms.

1.7.1 Identify the features labeled **A**, **B**, and **C** respectively. (3 x 2) (6)

1.7.2 Identify the slopes **P** and **Q**. (2 x 2) (4)

1.7.3 How can landform **A** be utilized by people? (1 x 2) (2)

1.7.4 How are the strata in FIGURE 1.7 positioned in relation to the earth's surface? (1 x 2) (2)

1.7.5 Which area do we find these landforms in FIGURE 1.7 in South Africa? (1 x 2) (2)

1.8 Refer FIGURE 1.8 showing climate zones.

1.8.1 Identify the climatic regions **A**, **B** and **C** respectively. (3 x 2) (2)

1.8.2 Describe the climatic regions that cover Libya and Madagascar. (2 x 2) (4)

1.8.3 Explain why problems in agricultural output and productivity are experienced in the region around Libya. (2 x 2) (4)

1.8.4 Describe the climate associated with climatic region **E.** (1 x 2) (2)

1.8.5 Name ONE vegetation in each that is associated with climatic region **E** and **B**. (2 x 2) (4)

1.8.6 Name and describe climatic region **D**. (2 x 1) (2)
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QUESTION 2

2.1 Refer FIGURE 2.1 showing earth's energy balance.

2.1.1 How many percentage of solar energy is release from the sun?

2.1.2 What is the primary source of energy?

2.1.3 What is the percentage of energy absorbed by the atmosphere and clouds?

2.1.4 What is the percentage of energy reflected by clouds and earth's surface?

2.1.5 What is the percentage of radiation absorbed by atmosphere? (5 x 1) (5)

2.2 Choose the correct word(s) from the list below to complete the following statements. Write only the word(s) next to the question number (2.2.1–2.2.5) for example, 2.2.6 Granite

batholith, Laccolith, lopolith, dyke, sill, granite dome

2.2.1 …is a mushroom like intrusion.

2.2.2 …is a saucer or basin like intrusion.

2.2.3 The largest intrusion that is dome shape is…

2.2.4 … is a vertical, wall like intrusion.

2.2.5 … is a horizontal sheet-like intrusion. (5 x 1) (5)

2.3 Study FIGURE 2.3 showing cuestas.

2.3.1 Describe *cuesta*. (1 x 2) (2)

2.3.2 Describe the difference in the formation of cuestas in diagram **A** and **B**. (2 x 2) (4)

2.3.3 Describe the difference between the *dip slope* and the *scarp slope* of a cuesta. (2 x 2) (4)

2.3.4 Describe how humans can use the cuestas. (2 x 2) (4)

2.4 Study FIGURE 2.4 showing synoptic weather map.

2.4.1 Identify the front at **E.** (1 x 1) (1)

2.4.2 Predict the weather at Cape Town as the front mentioned at QUESTION 2.4.1 is approaching. (2 x 2) (4)

2.4.3 Describe the weather station at Windhoek. (6 x 1) (6)

2.4.4 What is the pressure reading at **A**? (1 x 1) (1)

2.5 Study FIGURE 2.5 showing geostrophic flow.

2.5.1 Explain the following terms:

(a) *Geostrophic flow*. (1 x 1) (1)

(b) *Pressure gradient*. (1 x 1) (1)

(c) *Pressure gradient force*. (1 x 1) (1)

2.5.2 Which TWO forces aid in the formation of geostrophic flow? (2 x 2) (4)

2.5.3 Describe the strength of the Coriolis force changes from the equator to the poles. (1 x 2) (2)

2.6 Study FIGURE 2.6 showing slope process.

2.6.1 What process is depicted in FIGURE 2.6? (1 x 2) (2)

2.6.2 Describe the process you mentioned in QUESTION 2.6.1. (1 x 2) (2)

2.7 Study FIGURE 2.7 showing El ñino and La ñina.

2.7.1 Describe the following terms:

(a) *El ñino*. (1 x 2) (2)

(b) *La ñina*. (1 x 2) (2)

2.7.2 Is La ñina associated with drought or flooding? (1 x 2) (2)

2.7.3 In a paragraph of approximately EIGHT lines, describe the effects of El ñino to humans. (4 x 2) (8)

2.7.4 Describe the similarity between El ñino and La ñina according to FIGURE 2.7. (2 x 2) (4)

2.7.5 According to FIGURE 2.7, what is the difference between La ñina and El ñino. (2 x 2) (4)

2.8 Study FIGURE 2.8 showing mass movement.

2.8.1 Explain the term *mass movement*. (1 x 2) (2)

2.8.2 What type of mass movement is illustrated in FIGURE 2.8? (1 x 2) (2)

2.8.3 Provide evidence from FIGURE 2.8 that mass movement is taking place. (2 x 2) (4)

2.8.4 Explain strategies that can be used to minimize, the effects of Mass movements. (3 x 2) (6)

2.9 Study FIGURE 2.9 showing monsoon wind.

2.9.1 What is *monsoon wind*? (1 x 1) (1)

2.9.2 Explain how winter monsoon wind is formed. (2 x 2) (4)

2.9.3 Explain why summer monsoon brings rain? (1 x 2) (2)

2.10 Study FIGURE 2.10 showing slope elements/forms

2.10.1 Identify the slope elements **A**, B, **C** and **D**. (4 x 1) (4)

2.10.2 What is Knick-point? (1 x 1) (1)

2.10.3 Describe TWO characteristics of slope element **A.** (2 x 2) (4)

2.10.4 Identify the mass movement that is common on slope element **B**. (1 x 1) (1)

2.10.5 In a paragraph of approximately EIGHT lines, describe the significance of slope elements to humans. (4 x 2) (8)

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TOTAL: 225