



UNIVERSITY OF JOHANNESBURG

DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL MANAGEMENT & ENERGY STUDIES

MODULE: GR3AFET Geography for Education

CAMPUS: APK

SEMESTER TEST 2: MAY 2021

DATE: 18 MAY 2021

ASSESSORS:

Ms D Greenberg

INTERNAL MODERATOR:

Prof. C Kelso

EXTERNAL MODERATOR:

Dr J Giddy (UMP)

DURATION: 90 minutes

MARKS: 90

PAGES INCLUDING COVER:

4

SURNAME AND INITIAL: _____

STUDENT NUMBER: _____

Please read the following instructions carefully:

1. Answer ALL questions
2. Question 1 must be completed on the question paper.
3. Question 2 and 3 must be completed in the answer booklet.
4. Please number your answers clearly
5. For the purpose of this test, you may use bullet points EXCEPT for the essay in Question 3 where you must use full sentences and paragraphs.
6. This question paper MUST be handed in with your test script.

QUESTION 1 – FILL IN THE ANSWERS IN THE SPACES PROVIDED

1.1) When classifying air masses, what do the following acronyms represent: (8)

a) mE _____

b) cT _____

c) cAA _____

d) mP _____

1.2) List the five elements which contribute to the weather (5)

i. _____

ii. _____

iii. _____

iv. _____

v. _____

1.3) List and briefly describe the four types of atmospheric lifting and give the typical geographic characteristics associated with each. (12)

i. _____

ii. _____

iii. _____

iv. _____

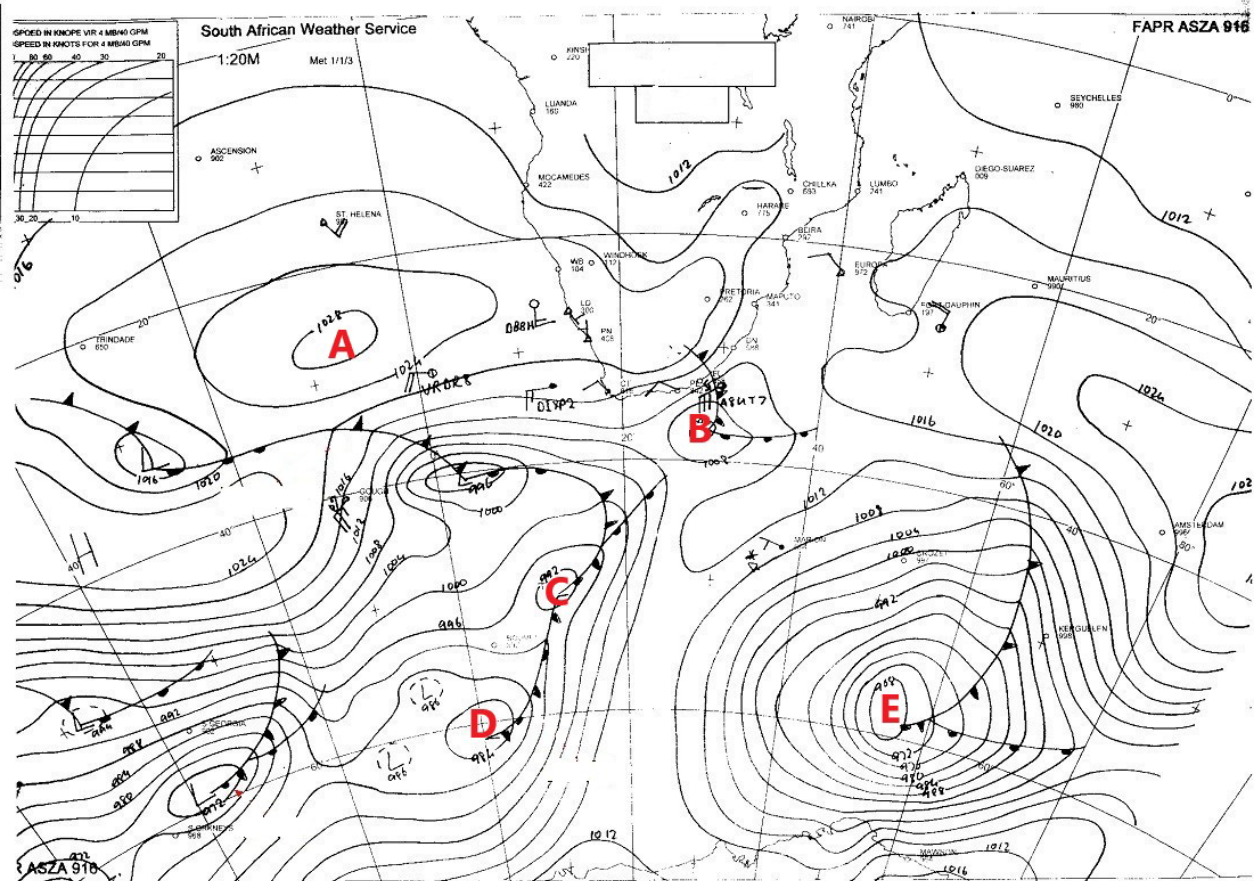


Figure 1: Synoptic Chart of South Africa

With reference to Figure 1, answer the following questions:

1.4) Which season is represented in Figure 1? Give **TWO** reasons for your answer

(3)

1.5) What pressure cells are indicated by the letters A, C, and D

(3)

A)

C)

D)

1.6) At what stage of development is the phenomenon represented by the letter E currently at? (1)

QUESTION 2 – ANSWER THESE QUESTIONS IN YOUR ANSWER BOOKLET

- 2.1) Compare the terms *Weather and Climate* (2)
- 2.2) Define the term *Wind shear* (1)
- 2.3) What are *Supercells* (2)
- 2.4) What is a *squall line*? (2)
- 2.5) What is an *air mass*? (4)
- 2.6) What is a *Rain Shadow*? (3)
- 2.7) What is a Storm surge and why are they dangerous? (2)
- 2.8) When and where do tornadoes occur in South Africa (3)
- 2.9) Briefly explain what a *Berg Wind* is (5)
- 2.10) Briefly describe the movement of a South African *Coastal Low* pressure (4)
- 2.11) Briefly describe the process of hail formation (4)
- 2.12) With reference to **Figure 1 Synoptic Chart of South Africa**, what phenomena are represented by the letters B and E, and briefly discuss the weather conditions associated with this type of weather system. (6)

[38]

QUESTION 3 - ESSAY (No bullets, full sentences and paragraphs only)

Discuss the development, characteristics and impacts of tropical cyclones in the Southern Hemisphere.

[20]

TOTAL [100]
