

# SACAI

**SECTION C**

**GRADE 12**

**EXAMINATION GUIDELINES**

**GEOGRAPHY**

**2016**

**SECTION C: EXAMINATION GUIDELINES GRADE 12 (CAPS)**

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## 1. INTRODUCTION

This guideline document mainly handle the final Gr 12 external examination, although reference to the SBA (school based assessment) is also been made because it contributes positively to the take off to the final examination.

The purpose of this document is to:

- Provide clarity on the depth and scope of the content to be assessed: Grade 12 National Senior Certificate (NSC) Examination - Geography.
- Assist teachers to adequately prepare learners for the final examination.
- Provide guidelines to SACAI internal and external moderators as well as examiners.

This section on 'Examination Guidelines' should be read (amongst others) in conjunction with official *Curriculum and Assessment Policy Statement (CAPS): Geography*.

- Please also refer to the *Revised SACAI CAPS Subject Guidelines: Geography (2015/16 - Section B)*.

## 2. LEARNING CONTENT

<p><b>GRADE 12 *</b></p> <p><b>Geographical skills and techniques</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Map work skills</li> <li><input type="checkbox"/> Topographic maps</li> <li><input type="checkbox"/> Aerial photos and orthophoto maps</li> <li><input type="checkbox"/> Geographical Information Systems (GIS)</li> <li><input type="checkbox"/> Using atlases</li> </ul> <p><b>Climate and weather</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mid-latitude cyclones</li> <li><input type="checkbox"/> Tropical cyclones</li> <li><input type="checkbox"/> Subtropical anticyclones</li> <li><input type="checkbox"/> Valley climates</li> <li><input type="checkbox"/> Urban climates</li> </ul> <p><b>Geomorphology</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Drainage systems in South Africa</li> <li><input type="checkbox"/> Fluvial processes</li> <li><input type="checkbox"/> Catchment and river management</li> </ul> <p><b>Rural and urban settlement</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Study of settlements</li> <li><input type="checkbox"/> Rural settlements</li> <li><input type="checkbox"/> Rural settlement issues</li> <li><input type="checkbox"/> Urban settlements</li> <li><input type="checkbox"/> Urban hierarchies</li> <li><input type="checkbox"/> Urban structure and growth</li> <li><input type="checkbox"/> Urban settlement issues</li> </ul>	<p><b>Economic Geography of South Africa</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Structure of the economy</li> <li><input type="checkbox"/> Agriculture</li> <li><input type="checkbox"/> Mining</li> <li><input type="checkbox"/> Secondary and tertiary sectors</li> <li><input type="checkbox"/> Strategies for industrial development</li> <li><input type="checkbox"/> Informal sector</li> </ul> <p><b>* A detailed outline of the content appears under “<i>Elaboration of content / topics</i>”</b></p> <p><b>or</b></p> <p><b><a href="http://www.education.gov.za">www.education.gov.za</a></b></p>
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### 3. SBA (ASSESSMENT PROGRAM)

TERM	ASSESSMENT	DESCRIPTION OF ASSESSMENT	MARKS*	WEIGHT
1	1	<input type="checkbox"/> Assessment Task 1 (Data-handling)	50	20
	2	<input type="checkbox"/> Test	100	10
2	3	<input type="checkbox"/> Assessment Task 2 (Research)	50	20
	4	<input type="checkbox"/> Mid-year examination (Work done in term 1 & 2)	300	10
3	5	<input type="checkbox"/> Assessment Task 3 (Map work)	50	20
	6	<input type="checkbox"/> Test	100	10
	7	<input type="checkbox"/> Trial Examination	300	10
<b>Year mark</b>				<b>100</b>

4	<b>End-of-year examination</b>	300	<b>300</b>
	<b>TOTAL ASSESSMENT</b>		<b>400</b>
	<b>Percentage</b> (total assessment ÷ 4)		<b>100%</b>

### 4. FORMAT OF THE EXAMINATION PAPERS

#### PAPER 1 (THEORY)

- This is a three (3) hour paper and is written in the first session on the day of the Geography examination.
- The paper consists of two sections:
  - SECTION A: Climate and Weather and Geomorphology (Physical Geography);
  - SECTION B: Settlement Geography and Economic Geography of South Africa (Human Geography).
- Each of the two sections consists of two (2) questions of 75 marks each. Any THREE of the four questions must be answered.
- The following instructions and information will appear on the second page of the question paper. Learners should be advised of these instructions from the beginning of the year as many learners do not adhere to these instructions:
  - Answer ANY THREE questions of 75 marks each.
  - ALL diagrams are included in the addendum.
  - Number ALL your answers in the CENTRE of the line.
  - Leave a LINE open between subsections answered.
  - Start EACH question at the top of a NEW page.
  - Number your answers correctly according to the numbering system used in this question paper.
  - Do NOT write in the margins of your ANSWER BOOK.
  - ENCIRCLE the numbers of the questions that you answered on the front page of your ANSWER BOOK.
  - Write neatly and legibly.

- A variety of source materials will be used, e.g. satellite images, synoptic weather maps, graphs, tables, sketch maps, cartoons, photographs and newspaper articles.
- Structure of the paper:
  - Each of the four questions will include **short/objective** type questions of 15 marks (15x1).
  - Each of the four questions will include two '**paragraph type**' questions for eight (8) marks each, that is two questions of (4x2) (8). These questions may NOT be answered in point form and will require analytical thinking and insight.
  - The remainder of each question will be made-up by single and double mark questions: **Single marks for basic recall and double marks for comprehension, application, analysis, evaluation and creativity.**
  - Each of the questions in **Sections A and B** respectively will cover the main topics of that question in a 50/50 ratio.  
**See also "Mark allocation".**

## PAPER 2 (MAP WORK)

This is a one and a half hour (1½) paper and will be written in the second session on the day of the Geography examination. Usually the questions will be answered on the question paper in spaces that are provided.

This question paper consists of four (4) questions that are COMPULSORY and is set as follows:

**QUESTION 1:** *Multiple choice* - **15** (single) marks (15x1) which cut across the whole 'syllabus'.

**QUESTION 2:** *Geographical techniques and calculations* (includes cross sections and application) → **20** (single) marks.

**QUESTION 3:** *Application of theory/map and photo interpretation* → **25** marks:  
Single marks for definitions and identification of features such as landforms, slopes, drainage patterns, settlement patterns, street patterns, etc and double marks for providing reasons, application, interpretation, analysis, evaluation and creation.

**QUESTION 4:** *Geographical Information Systems* → **15** marks: Single marks for definitions and basic recall, and double marks for providing reasons, application, analysis, evaluation and creative.

## MARK ALLOCATION

Previously (before CAPS) a question unit in **Paper 1** totalled 100 marks and individual facts counted two (2) marks each throughout. So was the mark allocation for the short objective type questions and of definitions two (2) marks each.

However, changing to question units that total **75 marks** inevitably brings about changes to the mark allocation of the sub-questions. The following examples guide the tutor/facilitator through a typical *theory question (75 marks)* and the *map work paper (75 marks)*.

### **Example 1: Paper 1, Question 1 (total = 75)**

- Short objective questions: *Climate* → 8x1=(8)  
Short objective questions: *Geomorphology* → 7x1=(7) [Reversed for question 2].
- *Climate* (30 marks) as follows:  
16 marks \*: A case study format which includes a 4x2 paragraph type question;  
14 marks \*: Other type of questions.
- *Geomorphology* (30 marks) as follows:  
16 marks \*: A case study format which includes a 4x2 paragraph type question;  
14 marks \*: Other type of questions.  
**= 75**

**[Follow the same format for questions 2, 3 and 4]**. Question 3 and 4 cover *Settlements* and *Economy of South Africa*.

\*Single marks per fact for basic knowledge/remembering/reading off and double marks per fact for comprehension, application, analysis, evaluating and creativity. All definitions (with a few exceptions) count one (1) mark, regardless the amount of facts.

### **Example 2: Paper 2 (Map Work)**

- QUESTION 1: Multiple choice questions: 15 marks (15x1).  
QUESTION 2: Calculations and techniques (cross-section included): 20 marks  
→ mainly 1 mark per step/label.  
QUESTION 3: Analysis and interpretation of a topographic map and a photograph, and application of theory: 25 marks → sub-questions of single and double marks per fact\*.  
QUESTION 4: GIS: 15 marks → sub-questions of single and double marks per fact\*.  
**= 75**

\*Single marks per fact for basic knowledge/remembering/reading off and double marks per fact for comprehension, application, analysis, evaluating and creativity. All definitions (with a few exceptions) count one (1) mark, regardless the amount of facts.

**WEIGHT ALLOCATION OF COGNITIVE LEVELS\*\***

<b>Lower Order</b>	<b>Middle Order</b>		<b>Higher Order</b>		
Knowledge and Remembering	Comprehension / Applying		Analysing / Evaluating Creativity		
<b>Level 1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
25%	50%		25%		

\*\* (**Important**): See **point 9** at the end of this document.

**5. ELABORATION OF CONTENT/TOPICS**

**PAPER 1 (THEORY)**

***CLIMATE AND WEATHER***

***Mid-latitude Cyclones***

- General characteristics
- Areas of formation
- Conditions necessary for formation
- Stages in the formation
- Associated weather patterns
  - Cold front conditions
  - Warm front conditions
  - Occluded front conditions
- Cyclone families
- Impact on human activities and the environment
- Possible pro-cautionary and management strategies
- Identification on synoptic weather maps and satellite images
  - Identification of stages of development on synoptic weather maps
  - Interpretation of weather symbols, predicted weather and impact

***Tropical Cyclones***

- General characteristics
- Areas of formation and associated terms
- Conditions necessary for formation
- Stages in the formation
- Associated weather patterns
- Impact on human activities and the environment (including impact of floods)Pre-cautionary and management strategies to manage the effect of tropical cyclones (including floods)
- Identification on synoptic weather maps and satellite images
  - Identification of stages of development on synoptic weather maps
  - Interpretation of weather symbols
- Case study of ONE recent tropical cyclone that affected Southern Africa

### ***Subtropical Anticyclones (High-Pressure Cells) and the resultant weather over South Africa***

- Location and identification of the THREE high pressure cells that affect South Africa:
  - South Atlantic / St Helena high-pressure cell;
  - South Indian / Mauritius high-pressure cell;
  - Kalahari / Continental / Interior high-pressure cell.
- General characteristics of the THREE high-pressure cells.
- Influence of anticyclones on South Africa's weather and climate.
- Interpretation and reading of information related to the THREE high-pressure cells on synoptic weather maps.
  
- Development of travelling disturbances associated with anti-cyclonic circulation:
  - *South Atlantic high follow (ridge behind) cold front;*
  - Moisture front and line thunderstorms;
  - Coastal low pressure;
  - South African berg wind.
- Resultant weather and impact associated with moving disturbances.
- Identification of moving disturbances on synoptic weather maps and satellite images.
- Reading and interpretation of synoptic weather maps and satellite images that illustrate weather associated with anti-cyclonic conditions.

### ***Valley Climates***

- Slope aspect
  - Definition
  - Impact on the distribution of temperature in a valley
  - Impact on human activities in a valley
- Development of
  - Anabatic winds (*include all upward movement of air in the valley*)
  - Katabatic winds (*include all downward movement of air in the valley*)
  - Inversions / thermal belt
  - Frost pockets
  - Radiation fog
  - Draw simple freehand sketches to depict anabatic and katabatic winds
- Influence on human activities
  - Settlements
  - Farming

### ***Urban Climates***

- Reasons for differences between rural and urban climates
- Urban heat islands
  - Causes of urban heat islands/factors contributing to higher city temperatures
  - Effects of urban heat islands
- Pollution domes
  - Causes of pollution domes
  - Effects of pollution domes
- Strategies to reduce the urban heat island effect

### ***Interpretation of Synoptic Weather Maps***

- Use of international symbols / *Symbols SA synoptic map*
- Identification and characteristics of high- and low-pressure cells
- Interpretation of the impact of high- and low-pressure cells

- Reading and interpretation of station models
- Satellite images - reading and interpretation
- Compare satellite images to synoptic weather maps

## **GEOMORPHOLOGY**

### ***Drainage Basins in South Africa***

- Concepts of
  - Drainage basin
  - Catchment area
  - River system
  - Tributary
  - Confluence
  - Watershed
  - Interfluvium (watershed between tributaries) [secondary watershed].
  - Source
  - Surface run-off / discharge (including hydrographs)  
- distinguish between 'sheet flow' and 'stream flow'
  - Groundwater / Groundwater flow
  - Water table / Base flow
- Types of rivers
  - Permanent
  - Periodic
  - Episodic
  - Exotic[\* Include hydrographs where applicable]
- Underlying rock structure, development and characteristics of the following drainage patterns:
  - Dendritic
  - Trellis
  - Rectangular
  - Radial
  - Centripetal
  - Deranged
  - Parallel
- Definition and factors influencing drainage density (also drainage texture)
  - Precipitation
  - Soil moisture
  - Vegetation
  - Slope/Gradient
  - Porosity
  - Permeability – the terms 'aquifer' (permeable rock) and aquiclude (impermeable rock)
- Determining stream order
- Use of topographic maps to determine drainage patterns, drainage density and stream order
- Discharge of a river
  - Laminar flow
  - Turbulent flow

### **Fluvial Processes**

- River profiles
  - Definition, description and associated characteristics
  - Cross/Transverse profile
  - Longitudinal profile
  - Relationship of both profiles to the stages of a river (upper, middle, lower course)
- River grading
  - Distinguish between graded and ungraded streams
  - Base level of erosion
  - Temporary base level of erosion
  - Permanent base level of erosion
- River rejuvenation
  - Reasons for rejuvenation
  - Features of rejuvenation
  - Knick point
  - Terraces
  - Valley in a valley
  - Incised/entrenched meanders
- Identification, description and formation of fluvial landforms
  - Meander
    - Undercut slope
    - Slip-off slope
  - Oxbow lake
  - Sand island
  - Braded stream
  - Flood plain
  - Natural levee
  - *Yazoo stream (cannot join main stream because of natural levees)*
  - Waterfall
  - Rapid
  - Delta
  - Utilisation of fluvial landforms by humans
- River Capture/Stream Piracy
  - Concepts of:
    - Abstraction
    - River capture/stream piracy
  - Features associated with river capture
  - Chapter stream
  - Captured stream
  - Misfit stream
  - Elbow of capture
  - *Wind gap (consists of river gravels and sand)*
  - Impact of river capture on captor stream and captured stream
  - Implications of river capture for human activities, settlements, recreation, agriculture and flooding
  - Identification of features associated with river capture on topographic maps
- Superimposed and antecedent drainage patterns

### ***Catchment and River Management***

- Importance of managing drainage basins/catchment areas
- Impact of people on, drainage basins/catchment areas
  - River pollution
  - Overgrazing
  - Deforestation
  - Human settlement
- *Hydrographs* (as a useful geographical technique)
- Strategies to manage drainage basins/catchment areas
- Case study of one catchment management strategy in South Africa

## **RURAL SETTLEMENT AND URBAN SETTLEMENT**

### **Study of Settlements**

- Concepts of
  - Settlement
  - Site
  - Situation (*relative location*)
- Rural and urban; settlements
- Classification of settlements according to
  - Size and complexity
  - Pattern
  - Function
  - Rural / urban

### ***Rural Settlements***

- How site and situation affect the location of rural settlements
- Classification of rural settlements according to
  - Pattern
  - Function
- Reasons for different shapes of rural settlements
  - Round
  - Linear
  - Cross road
  - T-shape
- Land use in rural settlements

### ***Rural Settlement issues***

- Concept of rural-urban migration
- Concept of rural depopulation
  - Causes and consequences of rural depopulation on people and the economy
  - Strategies to address rural depopulation
  - Case study that illustrates effects of rural depopulation and strategies to address them
- Social justice issues associated with rural settlements
  - Access to resources
  - HIV/Aids
  - Land reform

- Land reform
- Land redistribution
- Land restitution

### **Urban Settlements**

- The origin and development of urban settlements
- Urbanisation of the world population
- Concepts of
  - Urbanisation (*increasing percentage of population ....*)
  - Urban growth (*population numbers ...*)
  - Urban expansion (*boundaries ...*)
  - Urban sprawl
  - Rate of urbanisation
  - Level of urbanisation
  - Interpretation of graphs and statistics
- How site and situation affect the location of urban settlements
- Classification of urban settlements according to function:
  - Central places (towns and cities)
  - Trade and transport towns and cities
    - *Break-of-bulk points*
    - *Junction towns*
    - *Gateway / gap towns*
  - Specialised towns and cities (*mining / industrial / dormitory / holiday **etc.***)

### **Urban Hierarchies**

- Concepts of
  - Urban hierarchy
  - Central place
  - Threshold population
  - Sphere of influence
  - Range of goods
- Concepts of
  - Low- and high-order functions/services
  - Low- and high-order centres

### **Urban Structure and Patterns**

- Internal structure and patterns of urban settlements
  - Land-use zones including reasons for location and characteristics
    - Commercial
    - Residential
    - Industrial
    - Zone of decay/transition zone
    - Rural-urban fringe  
(*Greenbelt – location and function*)
  - Factors influencing the morphological structure of a city
  - Urban profiles
    - Concept of urban profile
    - Reasons for shape of urban profile

- Models of urban structure
  - Burgess/Concentric
  - Hoyt/Sector
  - Harris and Ullman/Multiple nuclei
  - Modern American-western city
  - Third World city
  - South African city-changing urban patterns and land use

### ***Urban Settlement Issues***

- Recent urbanisation patterns in South Africa
- Urban issues related to rapid urbanisation
  - Inner city problems
  - Urban blight
  - Traffic congestion
  - Lack of planning
  - Overcrowding
  - Housing shortages
  - Service provision
- Informal settlements
  - Growth of informal settlements
  - Issues associated with informal settlements
  - Strategies to address issues relating to informal settlements
  - Case studies from the world and South Africa
- Case studies on how selected urban areas in South Africa are managing urban challenges
  - Environmental injustices
    - Air pollution
    - Noise pollution
    - *Water pollution*
    - Destruction of ecosystems
  - Economic injustices
    - Poverty
    - Poor public transport systems
  - Social injustices
    - Unequal access to services
    - Unequal access to resources

## ***ECONOMIC GEOGRAPHY OF SOUTH AFRICA***

### ***The Structure of the Economy***

- Economic sectors - definitions and examples
  - Primary activities
  - Secondary activities
  - Tertiary activities
  - Quaternary activities
- Contribution of economic sectors to the South African economy
  - Value/Contribution to GNP and GDP
  - Employment
- Use/interpretation of statistical and graphical information

### **Agriculture**

- Contribution of agriculture to South African economy
- The role of small-scale farmers and large-scale farmers
- Main products produced
  - Cattle
  - Maize
  - Sugar cane
  - *Local / Domestic* market (Home market)
  - Export market
- Apply factors favouring agriculture in South Africa to main products produced
- Apply factors hindering agriculture in South Africa to main products produced
- Food security/Food insecurity
  - Definition
  - Importance of food security in South Africa
  - Factors influencing food security in South Africa
- Case studies related to food security in South Africa

### **Mining**

- Contribution of mining to South African economy
- Significance of mining to development in South Africa
- Main products produced
  - Coal
  - Gold
  - Platinum
- Apply factors favouring mining in South Africa to main minerals mined
- Apply factors hindering mining in South Africa to main minerals mined
- Case study of one of South Africa's main minerals in relation to the above

### **Secondary and Tertiary Sectors**

- Contribution of secondary activities to South African economy
- Types of industries
  - Heavy and light
  - Raw material orientated
  - Market orientated
  - Footloose industries
  - Ubiquitous industries
  - Bridge industries/break-of-bulk industries
- Factors favouring industrial development in South Africa
  - Raw materials
  - Labour supply
  - Water supply
  - Energy supply
  - Transport
  - Political intervention
  - Competition
  - Trade
- Factors hindering industrial development in South Africa
  - Overconcentration
  - Transport

- Air pollution
- Labour supply
- Water supply
- Raw materials
- Political interference
- Competition
- Trade
- Four core industrial areas of South Africa
  - ▲ [Also apply factors 'favouring' and 'hindering' their development]
    - PWV (Gauteng)
    - Durban-Pinetown (eThekweni)
    - Port Elizabeth-Uitenhage (Nelson Mandela Metropole)
    - South-western Cape
    - Map showing location / Factors favouring their location
    - Main industrial activities
    - South African case studies to illustrate the above
- Strategies for industrial development in South Africa
  - Overview of apartheid and post-apartheid industrial development strategies
    - The Good Hope Plan (apartheid)
    - The Reconstruction and Development Programme (RDP) (post-apartheid)
    - Growth, Employment and Redistribution (GEAR) (post-apartheid)
  - Concept and distribution of Industrial Development Zones (IDZ's)
  - Case studies of two Spatial Development Initiatives (SDI's)
    - Maputo Development Corridor
    - Wild Coast
    - *Richards Bay*
  - Issues related to industrial centralisation and decentralisation
- Contribution of tertiary activities to South African economy
  - Definition of tertiary activities
  - Examples of tertiary activities
  - Interpretation of graphs and tables
  - Case studios of contribution of tertiary activities to South African economy
- International trade (very briefly, revision of Gr. 11)
  - *Concept of 'balance of trade'*
  - *Main trading partners + products (related to economic sectors)*
  - *Factors such as 'exchange rate / distance to markets / labour aspects / production costs'.*

### **The Informal Sector**

- Concept of informal sector employment
- Characteristics of informal sector employment
- Reasons for high informal sector employment in South Africa
- Challenges facing South Africa's informal sector
- Importance/role of the informal sector in the economy
- Strengthening the informal sector
- Case studies to illustrate the above in the South African Context

**PAPER 2 (GEOGRAPHIC SKILLS AND TECHNIQUES)**

**1:50 000 Topographic Maps**

All the geographical skills and knowledge studied in **Grades 10 and 11** are relevant to Grade 12.

**Map Work Techniques**

**These concepts should be taught in an integrated fashion.**

- Contour lines, contour interval and height and conventional signs
- Compass direction
- True/geographic bearing
- Magnetic declination and bearing
- Map scale - types of scales and comparing the scales of topographic maps, orthophoto maps and aerial photographs
- Calculating straight-line distance in reality
- Calculating area of regular features
- Map reference numbers/map index
- Alphanumeric reference/grid reference
- Map co-ordinates/fixing position - slating the co-ordinates
- Calculation and interpretation of gradient
- Cross-sections - drawing of cross-sections, indicating position of features on cross-sections and identifying features represented by cross-sections
- Intervisibility
- Calculating vertical exaggeration

**Topographic Map Application**

- Interpretation of 1:50 000 topographic maps
  - Interpreting physical features, e.g. relief, drainage, climate and vegetation
  - Interpreting cultural features, e.g. settlement, land-use and transport networks
- Application of all aspects of syllabus covered in the theoretical section of Geography
- Interpreting of temperature, rainfall, climate zones and biomes graphs and tables that are related to the 1:50 000 topographic map and the 1:10 000 orthophoto map being assessed.

**Photographs**

- Types of photographs
- Advantages and disadvantages of different types of photographs
- Orthophoto maps
- Interpreting size, shape, tone, texture, shadow and patterns to identify features, landforms and activities on vertical aerial photographs and orthophoto maps
- Orientation of orthophoto map / vertical aerial photos to topographic map
- Compare orthophoto maps / vertical aerial photos to topographic maps
- All techniques mentioned under map work techniques applicable to orthophoto maps

**Orthophoto Map Application**

- Interpretation of 1:10 000 orthophoto maps
  - Interpreting physical features e.g. relief, drainage, climate and vegetation
  - Interpreting cultural features e.g. settlement, land-use and transport networks
- Application of all aspects of syllabus covered in the theoretical section of Geography

**Map Projections (Revise Gr. 10)**

- Types of map projections
  - Mercator
  - Gauss Conformal
- Types of maps
  - Reference maps
  - Thematic maps - defining, identifying and interpreting of different types of thematic maps with the aid of atlases

**Geographical Information Systems (GIS)**

- Concepts of
  - GIS
  - Remote sensing
    - Resolution
    - Pixels
  - Spatial and spectral resolution
  - Spatial and attribute data
  - Vector and raster data
  - Spatial objects
    - Points/nodes
    - Lines
    - Area/polygons
- Concept of layering of information
- Components of GIS
- Sources of information for GIS
- Data manipulation and analysis
  - Concept of data manipulation
  - Data integration
  - Buffer creation
  - Querying
  - Statistical analysis
- Data standardisation
- Data sharing
- Data security
- Application of GIS by the
  - Government
  - Private sector
- Developing a 'paper GIS' from existing maps, photographs and other sources of information on layers of tracing paper
- Identify and interpret concepts by using given data such as satellite images, topographic maps, orthophoto maps, aerial photographs, pictures and statistics indicated on graphs and tables.

**6. MID-YEAR EXAMINATION**

- **Two papers**, one of 3 hours (Theory) = 225 marks and one of 1½ hours (Map Work) = 75 marks.
- **Paper 1** consists of THREE compulsory questions:  
Section A: Two questions on physical geography (2x75);  
Section B: One question on rural and urban settlements (1x75)
- **Paper 2** as outlined for final examination (75 marks).  
▲ Follow the same format as for the end-of-the-year examination.

## CONTROLLED TESTS AND ASSESSMENT TASKS

### Tasks

Tasks should cover the geographical content and concepts highlighted in the curriculum. They should include a variety of activities and strategies that assess specific aims and skills.

For Grade 12 THREE (3) assessment tasks are required:

- *First term*: Data handling.
- *Second term*: Research, which investigate a problem/topic from the Grade 12 curriculum according to the “research route” with a limited ‘ fieldwork component.
- *Third term*: Practical task (map work), which may adapt the format of the second paper.

The recommended minimum mark allocation for tasks in FET is 50 and is assessed either by means of a *memorandum* or a *rubric*, or a combination of these.

### Tests

A controlled test should be **60 minutes** long for **100 marks**. These tests should cover a significant amount of content and skills, such as a section of work that covers at least six weeks, but preferable a whole term’s work.

Tests and examinations must be ***completed under strictly controlled conditions***.

The format of tests should be the same as a question unit of an exam paper, i.e. *short questions* (such as multiple choice, statements identified as true/false etc) as well as questions which require *discussion* and *explanation*. Also see the section on ‘*Mark allocation*’.

It is recommended that ALL controlled tests in the FET Phase should consist of theory (75%) and map work (25%).

Tests (included some other formal assessment tasks) should also make provision for a variety of cognitive levels. (See the section on ‘*Importance of Balanced Papers*’).

**EXAMINATION GUIDELINES: GEOGRAPHY 2016**

**8. EXAMPLE OF A YEAR PLAN**

GRADE 12											
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/11	
<b>TERM 1</b>	GEO TECH* (4h) Revise Gr. 10/11	CLIMATE AND WEATHER (14h)				GEOMORPHOLOGY (12h)			GEO TECH (7h)* Task (Task 1)** Test (Task 2)		

\* Geographical skills and techniques (map work) to be done throughout the year.

\*\* Task on "data-handling".

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/11
<b>TERM 2</b>	RURAL & URBAN SETTLEMENTS (29h)							GEO TECH (5h) Task 3 – Research*	Consolidation Revision	
									MID-YEAR EXAM (Task 4)	

\* The "Research/Essay task" should commence at the beginning of the term, and it is recommended that it is marked step-by-step through the proposed time period, e.g. 6 weeks.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>TERM 3</b>	ECONOMY OF SOUTH AFRICA (26h) & GEOGRAPHICAL TECHNIQUES (7h)**						Task 5 (Map Work)* (1h) Test (Task 6) (1h)	Consolidation / Revision TRIAL EXAMINATION (Task 7)		

\* It is suggested that the **Practical Task (Map Work)** will be done in the third term after all the learning content is completed and the application of theory then will be most effective.

\*\* It is recommended that this time frame of "geographical techniques" should be incorporated in the first and second term's schedule, with only revision time before the practical task.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>TERM 4</b>	<b>REVISION:</b> -Climate and Weather: 3 hours -Geomorphology: 3 hours -Settlements: 3 hours -Economy of SA: 3 hours -Geographical Techniques: 3 hours				FINAL EXAMINATION					

## 9. DIFFERENTIATION AND COGNITIVE LEVELS (& ANALYSIS)

Tests and examination papers must cater for a range of cognitive levels and **Bloom's Taxonomy** (revised) is implemented in this regard.

Out of necessity, tutors/facilitators must measure their students' ability. Doing so requires a classification of levels of intellectual behaviour important in learning. **Bloom's Taxonomy** (amongst others) provides a measuring tool for thinking. It is a multi-tiered model of classifying thinking according to six cognitive levels of complexity: remembering, understanding, applying, analysing, evaluating, and synthesising / creative.

These terms are defined as follows:

- **Remembering**: Retrieving, recognising and recalling relevant knowledge from long-term memory.
- **Comprehension (understanding)**: Constructing meaning from oral, written and graphic messages through interpreting, classifying, comparing, and explaining.
- **Applying**: Carrying out; implementing.
- **Analysing**: Breaking material into constituent parts; to determine how the parts relate to each other.
- **Evaluating**: Making judgements based on criteria and standards through checking and critiquing.
- **Synthesis**: The combination of the parts, or elements, in order to form a more complete view or system. **Creative**: Putting elements together to form a coherent or functional whole; recognising elements into a new pattern or structure through generating, planning or producing.

This cumulative hierarchical framework consisting of six categories each requiring achievement of the prior skill or ability before the next, more complex one remains easy to understand. These six categories can be grouped into three major levels: lower, middle and higher order.

LEVEL		SOME ACTION WORDS
<b>Lower order</b>	▪Knowledge / Remembering	-Name (or list) / Give (outline ... the main points) / Define / Identify / Match
<b>Middle order</b>	▪Comprehension (understanding)	-Describe / Explain / Summarise / Classify / Debate / Illustrate / Report / Forecast
	▪Application	-Compare / Contrast / Demonstrate / Examine / Motivate / Calculate / Forecast / Apply
<b>Higher order</b>	▪Analysis	-Distinguish / Relate / Contrast / Divide / Identify
	▪Evaluation ▪Synthesis /  Creative .....	-Justify / Compare / Conclude -Arrange / Conclude / Formulate (a solution / hypothesis) / Integrate / Group - Invent / Design / Develop

An example of a **grid** to be used when analysing test / exam papers appears on the following pages.

**EXAMINATION GUIDELINES: GEOGRAPHY 2016**

**ANALYSIS OF GEOGRAPHY PAPER 1 (Theory)**

Cognitive levels for assessment according to the NCS Curriculum and Assessment Policy Statement, FET Phase and Bloom's taxonomy (level 1 to 6) grouped as low, middle and high order questions.

GRADE 12	Paper: .....	COGNITIVE LEVELS (Use total marks for each sub-question)					
		LOW (±25%)	MIDDLE (±50%)		HIGH (±25%)		
		1 Remember	2 Understand	3 Apply	4 Analyse	5 Evaluate	6 Creative
<b>PAPER 1</b>							
<b>Question 1 (75):</b>							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
<b>TOTAL</b>							
<b>Question 2 (75):</b>							
2.1							
2.2							
2.3							
2.4							
2.5							
2.6							
2.7							
<b>TOTAL</b>							
<b>Question 3 (75):</b>							
3.1							
3.2							
3.3							
3.4							
3.5							
3.6							
3.7							
<b>TOTAL</b>							
<b>Question 4 (75):</b>							
4.1							
4.2							
4.3							
4.4							
4.5							
4.6							
<b>TOTAL</b>							
<b>TOTAL / 225</b>							
<b>% of TOTAL</b>							

EXAMINER: ..... DATE: .....

MODERATOR: (1)..... DATE: .....  
(2)

**EXAMINATION GUIDELINES: GEOGRAPHY 2016**

**ANALYSIS OF GEOGRAPHY PAPER 2 (Map Work)**

**Cognitive levels for assessment according to the NCS Curriculum and Assessment Policy Statement, FET Phase and Bloom's taxonomy (level 1 to 6) grouped as low, middle and high order questions.**

GRADE 12	Paper: .....	COGNITIVE LEVELS (Use total marks for each sub-question)					
		LOW (±25%)	MIDDLE (±50%)		HIGH (±25%)		
		1 Remember	2 Understand	3 Apply	4 Analyse	5 Evaluate	6 Creative
<b>PAPER 2 (75)</b>							
<b>Q 1: Objective</b>							
1.1	1.2						
1.3	1.4						
1.5	1.6						
1.7	1.8						
1.9	1.10						
1.11	1.12						
1.13	1.14						
1.15							
<b>Total</b>							
<b>Q 2: Calculations</b>							
2.1							
2.2							
2.3							
2.4							
2.5							
2.6							
<b>Total</b>							
<b>Q 3: Application</b>							
3.1							
3.2							
3.3							
3.4							
3.5							
3.6							
<b>Total</b>							
<b>Q 4: GIS</b>							
4.1							
4.2							
4.3							
4.4							
4.5							
4.6							
<b>Total</b>							
<b>TOTAL / 75</b>							
<b>% of TOTAL</b>							

EXAMINER: .....

DATE: .....

MODERATOR: (1) .....  
(2) .....

DATE: .....