## KZN DEPARTMENT OF EDUCATION GREENBURY SECONDARY SCHOOL JUNE EXAMINATION 2015 GEOGRAPHY PAPER 2

**EXAMINER: S.SINGH** 

MODERATOR: D.RAMASAMI

**DURATION:1,5 HOURS** 

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75 CDADE 11

GRADE: 11

DATE:11/06/15

MARKS: 75

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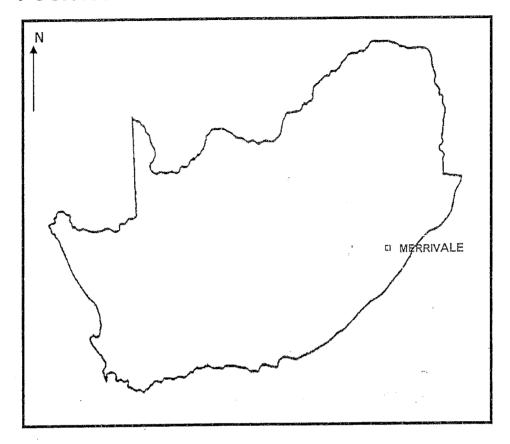
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### INSTRUCTIONS AND INFORMATION

- 1. This paper consists of 14 printed pages.
- 2. Answer all questions in the spaces provided.
- 3. You are supplied with a 1: 50 000 topographical map 2930CA MERRIVALE and an orthophoto map 2930 CA MERRIVALE.
- 4. You must hand both the maps to the invigilator at the end of the examination session.
- 5. Show all calculations.
- 6. You may use a non-programmable calculator.
- 7. Write neatly and legibly.

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# POSITION OF MERRIVALE WITHIN SOUTH AFRICA



The following English terms and their Afrikaans translations are shown on the topographical map.

### **ENGLISH**

Diggings Rifle Range Sewage Works

### <u>AFRIKAANS</u>

Uitgrawings Skietsbaan Rioolwerke

### QUESTION 1: MULTIPLE CHOICE

( ]

The questions below are based on the 1:50 000 topographical map 2930 CA MERRIVALE, as well as the orthophoto map 2930 CA MERRIVALE as part of the mapped area. Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A-D) in space provided.

	1.1	The contour interval on the orthophoto map is metres.	
(_)		A 10 B 5 C 20 D 15	
	1.2	The topographical map scale istimes smaller than the orthophoto map scale.	
		A 5 B 10 C 15 D 20	
	1.3	The town of Merrivale is in the province.	A Pro-resonance
		A Gauteng B Kwazulu-Natal C Eastern Cape D Limpopo	
	1.4	The distance from Merrivale to Mooiriver using the N3 is	
		A 45km B 57km C 58km D 14km	
		PAGE 3 OF 14	

1.5	The is	map reference of the topographical map north of Mei	rivale
	A	2930CC	
	В	2929DB	AND THE PROPERTY OF THE PROPER
	Ĉ	2930AC	
	D	2930CB	
16.	The	feature labelled 9 on the orthophoto map is a/an	PARKET CHESTAL STREET FOR CHESTAL CONT.
	A	furrow	
	В	row of trees	and the reason of the control of the
	$\tilde{C}$	orchard	
	D	river	
1.7		type of road found in block D5 on the topographical a road.	map is
	007 002.2	·····	And the state of t
	$\mathbf{A}^{\cdot}$	other	
	В	national	a service of the contract of t
	C	secondary	
	D	arterial	
1.8	The	height of the largest dam wall in block B11 is me	etres.
	٨	1000	
	A	1080	The same of the sa
	B C	1100 1060	
	D	1074	
	D	10/4	
1.9	The	man-made feature found in block A1 on the topograp	hical
	map	is a /an	· pro-reconnection and resource
	A	river	Marked by MCCAMCCAR (SOUTH A REAL A ACCIOCA AMOUNTS CHARA
	В	cultivated land	
	C	firebreak	
	D	lookout tower	

1.10		railway station in block A12 on the topographical mapeated as label number on the orthophoto map.	o is
	A B C D	4 5 8 10	
1.11		educational institution marked 5 on the orthophoto man	p
	A B C D	college school university technikon	
1.12		ence of the extraction of underground water in block (ated by a	C11 is
	A B C D	dam windpump reservoir furrow	
1.13	The a	Ititude of the centre of the rifle range in block D10 is es.	D D O G
	A B C	1120 1100 1080	

1.14	1116	town of Merrivale is located to the of Mpopho	omeni(E9).	
	A B C D	north south north west north east		
1.15		farming activity being practised in area marked C is topographical map is	in block B1	
	A B C D	pastoral farming fruit farming crop cultivation poultry farming		(
			{15}	

# QUESTION 2: GEOGRAPHICAL TECHNIQUES AND CALCULATIONS.

	2.1	Calculate the straight line distance from 1279(block F7) to 1388 (block E11) in metres.
( )	2.2	Write the scale of the orthophoto map as a word scale.
		(1)
	2.3	Calculate the average gradient between ●1214 (block A2) to ●1067 (block A3).
(_)	(Section Const.) Annual (Section Annual Const.)	(5)
	2.4	Explain the effect of this gradient on hikers if there was a hiking trail in the area.
	-	(2)

2.5	A cross section is drawn between points 1 and 2 on the orthop.	hoto
	map. Assume that the vertical scale is 5mm represents 40m. Calculate the vertical exaggeration of the cross section.	
		nors of the state
		(4)
2.6	Provide a reason why the vertical scale in a cross section is exaggerated.	
Manual Fording		(1)
2.7	Refer to •1221 (A6) from •1079 (B8) on the topographical manswer question 2.7.1 and 2.7.2.	ap and
2.7.1	Calculate the true bearing.	
MATERIAL PROPERTY OF THE PROPE		(2)
272	Calculate the magnetic bearing for the year 2002.	
سکه ۱ و سک	Outoutate and magnetic obtaining for the jeth are the	
Unit in 1990 Commission by Park		
		(2)

## QUESTION 3: APPLICATION OF THEORY

	3.1	Give TWO pieces of evidence from the topographical map which indicates that Merrivale receives seasonal rainfall.	
(	3.2	Westward expansion of the town of Merrivale is limited. Give ONE reason to support this statement.	(2)
	3.3	Suggest a possible reason for the row of trees found in the area of Mpophomeni in block D8 on the topographical map.	(2)
()	3.4	The landing strip in blocks D10/11 on the topographical map has a good location. Give TWO reasons to support this statement.	(2)
			(4)

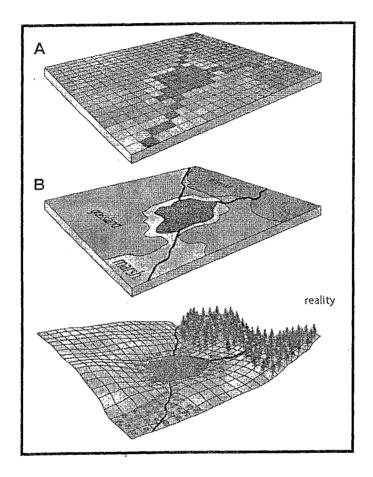
3.5	Merrivale has a good tourism potential.List any ONE significant feature from the map that may attract tourists to this area.	
		(1)
3.6	The natural vegetation in the mapped area are prone to veld fires. Give ONE piece of evidence to support this statement.	
3.7	Discuss TWO negative impacts of the N3 passing through the town of Merrivale.	(2)
3.8	Give ONE reason for the location of the Sewage Works in block E9.	(4)
		(0)

3.9	A large part of the mapped area is covered by woodlands/ plantations. State TWO ways how this contributes to the economy of Merrivale.
h	
3.10	The Mthinzima River in block E9 on the topographical map is flowing in a north westerly direction. Give ONE piece of evidence from the map to support this statement.

# QUESTION 4: GIS

4.1	Name TWO components of GIS.	
		(2)
4.2	Define the term spatial resolution.	TO THE WAS A WAS EVEN AS A SECOND OF
		(1)
4.3	Explain why the orthophoto map of Merrivale has a high spatial resolution.	MOTORIO DE RELIGIOS
Security and the securi		(2)
4.4	Refer to the topographical map and answer the questions.	
4.4.1	Name ONE line object in Block F8.	
		(1)
4.4.2	Identify ONE point feature in Block E9.	
	PAGE 12 OF 14	(1)

## 4.5 Study the illustrations below.



4.5.1 Identify the two data storage formats of GIS.

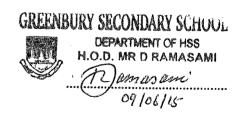
(\_)

A	

4.6	Several tourism attractions have been identified in Merrivale. These attractions will have a positive impact on the economy of Merrivale.
4.6.1	Mrs.Zungu, a business analyst wants to open a Bed and Breakfast in Merrivale. Explain how she would make use of GIS in order to ensure the success of her tourism business venture in Merrivale.
	2x2 = (4)
4.6.2	State ONE disadvantage of obtaining data from a secondary source.
	(2)
	{15}

GRAND TOTAL: 75

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Marking Memo Geography Gr 11 - Mapwork - June 2015

## Question 1

- 1.1.
- 1.2. A
- 1.3. E
- 1.4. C
- 1.S. C
- 1.6. B
- 1.7. A
- 1.8. A
- 1.9, C
- 1.10. C
- 1.11. B
- 1.12. B
- 1.13. B
- 1.14, C
- 1.15. C

Question 2.

21. 11,5  $\times$  0,5 = 5,75 km  $\times$  1000 = 5750 m (range 5650 -5850)

2.2.1 cm on the map represents 0.1 km on the ground.

2.3 · Gradient = #E VI = 1214-1067 = 147

HE =  $6.1 \times 0.5 \times 1000 = 3050$ =  $\frac{147}{3050} = \frac{3050}{147}$ 

> = 1:20,7 m (Range 1:19 - 1:21)

2.4. For every 20,7m horizontally, the land hists by 1m.

= 1:8000 = 1:8000

= 1,25 Times

more clearly.

2:7.1 120° + 180° = 300°(Range 298° - 302°).

27.2. MB = TB + MD

300 + 22 42 Consuler - 322 42 Wol TN. with Torry

يان د ايان د	3.1. Presence of non-perennial strams
giyy a Gallier Bank'i pankana makamadi ka barik milkan	Numerous dams
garuskopinsk chlassen oproprimine	Evidence of windpumps (Any 2).
e popliciety spyllické fejá jedykala navádlannya mederv ne	
outsid so outside some vid store and store and store southers are	
(pasy filmatulus da masumassi kini di miziri bumunda senia di da	3.2. Location of midmen dam.
nakangaira (habagi-kasahipa manaka u akiki izibine yan ciph	
والمعارضة والمستركة والمراود والمراود والمستركة والمسترك	3.3. Buffer & block view of sever works.  Trees given off oxygen & punties air.  Windbreak (any 1).
on protesta and alloware out - requestions	Trees given off oxygen + purples air.
1	Windbreak (any 1).
	3.4. Away from built up arpa
	Flat land
	Cheap land. (any 2)
and a second	
digentine for med in respect des Alliana bassa jahan	3.5. Michael Dam
militarian mai 1978 di Angel Super Propinti Basab di Maga	Caravan park
ESTACOSTATA PERA PERA PERA PERA PERA PERA PERA PER	Wadlands
m (dit fants two i mod he in noaway as peus daugen ag	Farmlands. (Any 1).
( )	
and the second s	3.6. Watch towers
artini international productive del prime especial de la prime especial de la prime especial de la prime espec	Firebreaks
nikitan silikitawa kapanyi waki azzu akina miska	Fourm Dams
n Western volge (1940 - 1, d.), and wind gave constant of	Furons. (Ay 1).
nardijoljalikisedela rammasakistuuria roomeelija	
enter antika kon eta eta zu alamana per un pa a empa (migi-jaj	3.7. Too much traffic cours congretion notherion.
orthological Estat (ELI), annuar presente d'aide	3.7. Too much draffic causes congretion, pollution. Notice from draffic disturbs the proce.
Saids Section (Control of Control	Accidents on increase.
raddictanger or a strong partie ( and you all when his parties	
en en modern et en met met en	

3.8	. Low lying arta.
	Gently sloping land
	Gently sloping land Water close by for treatment world.
and the second section of the second section is a second section of the second section in the second section of the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the section is a section section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the s	(Any 1).
3.9	. Proviètes employment
an an an ang ng Inggalasan ang Sawah na an	Stimulates economy
१९४८मा महिलाम् स्थापना	Development of infrastructure Sauce of timber. (Any 2).
aanan taga and making on open on tagan and making	Sauce of timber. (Any 2).
nek para negypypek v roennyd - April yn pa planna nego g tidd	
3.10	. Height is dearpoing in a northly direction
Significants & and the first proportional absorption for the second	
Qu	estion 4.
4.1.	Data, User, Handware, Software (Any 2).
•	
4.2.	
· ·	
4.3.	It has mor clarity + detail of mages
Ho	is a langer scale. (Any 1)
4.4	road / track + hiking trail /river / boundary.
4.4	.2. school 1
4.5.	1. A - Raster
	B - Vector
4.6.1	
Pro	. Can give her tourism stats of the area. vide information on topography 1 infrastructure
1	ara / sail condition for building (any 2).  2. Info could be manipulated / outdated /
4.6.	2. In so cauld be manipulated / autolated /
'no	reliable source etc. (any 1