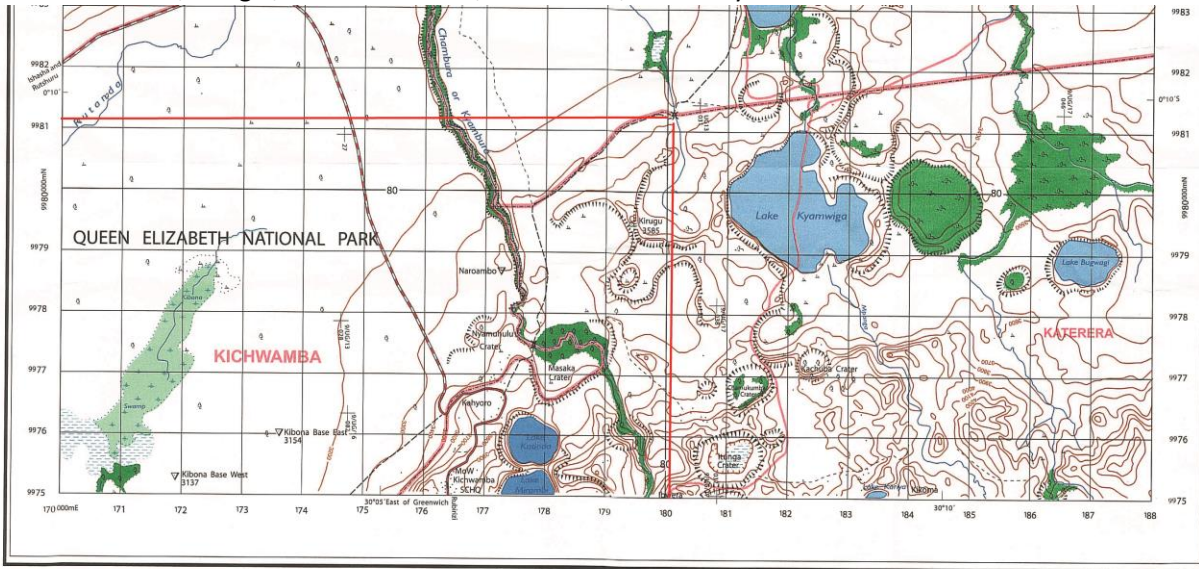




(a) State the:

- i. man-made feature found at grid reference 801812  
 a culvert/Bridge /motorable track/ main track/boundary

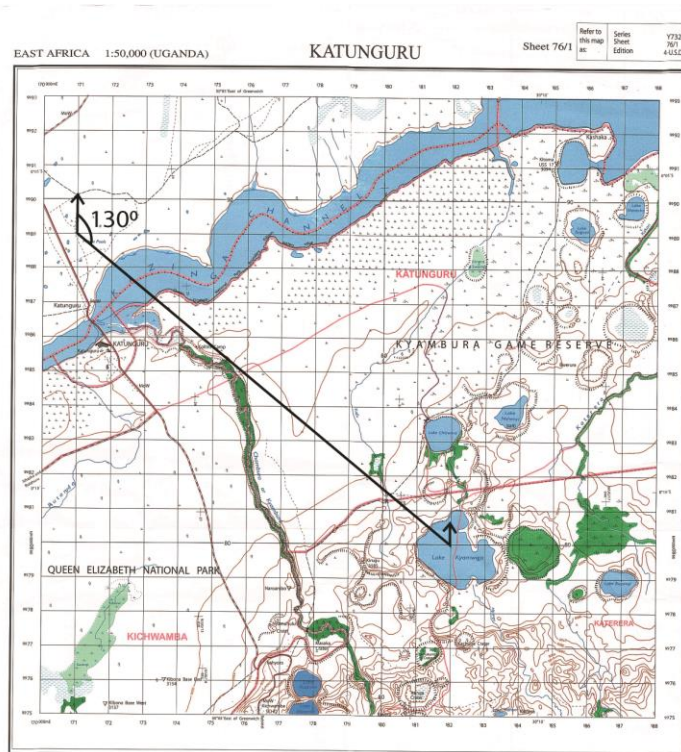
(01mark)



SCALE 1:50,000

- ii. bearing of Lake Kyamwiga (grid reference 820800) from Hipopools (grid reference 710890).  
 (02 marks)

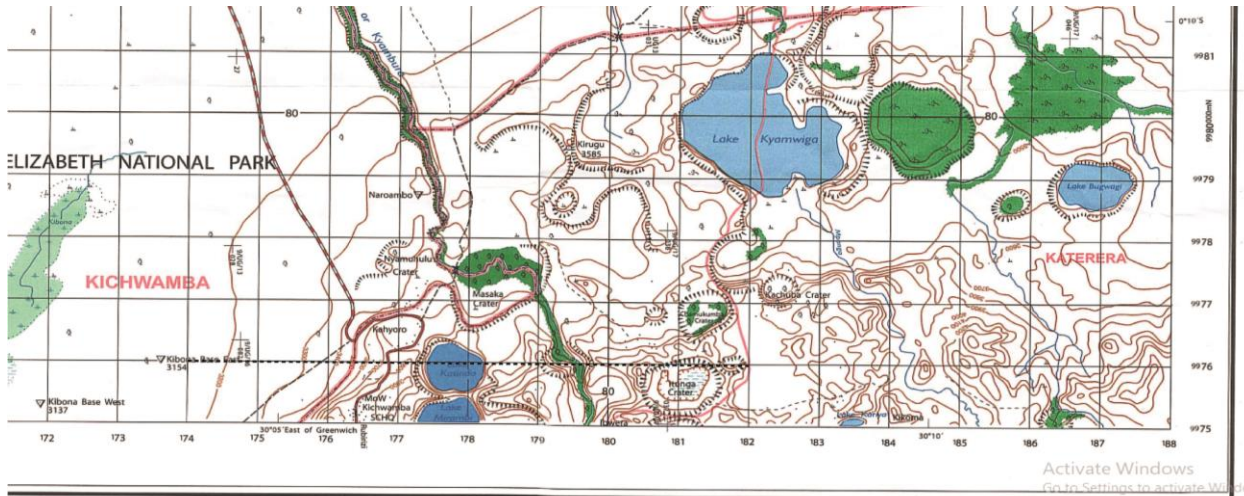
$$130^{\circ}/(128^{\circ}-132^{\circ})$$



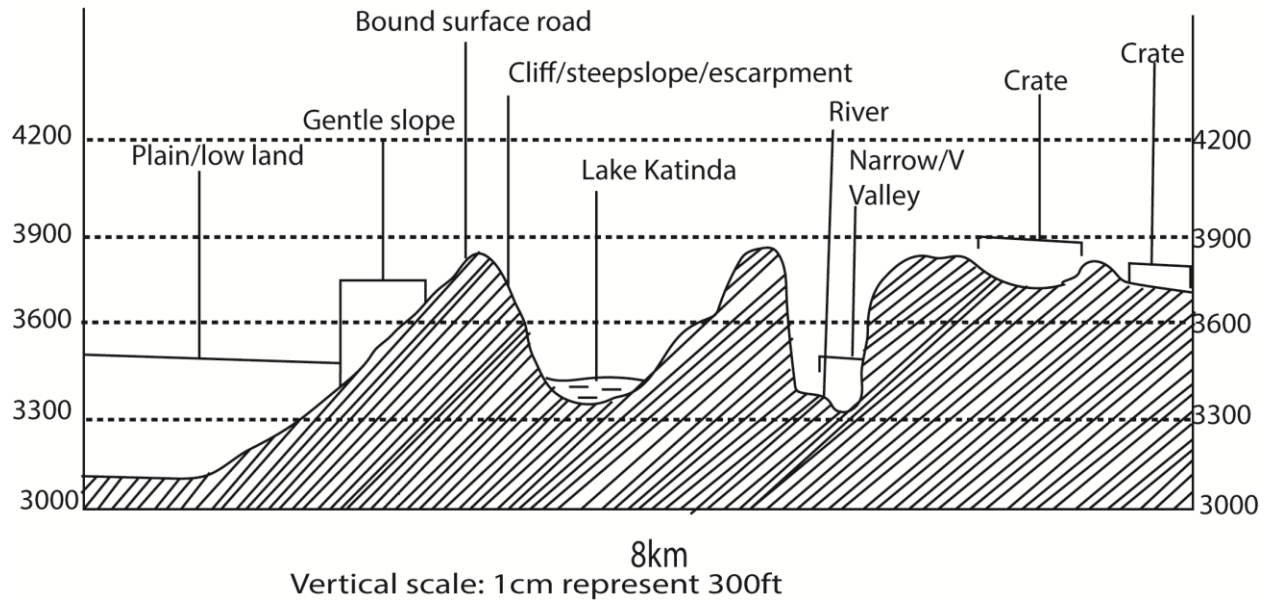


- b. Draw a cross-section along Northing 76 from Easting 74 to Easting 82 and on it mark and label:
- any **three** land form features .
  - any **two** drainage features,
  - all weather road.
- (09marks)

Draw a cross section along the dashed line below and compare



ACROSS SECTION OF KATUNGURU ALONG NORTH 76 FROM EASTING 74 TO EASTING 82 SHOWING THREE LAND FORM FEATURES, TWO DRAINAGE FEATIJRES AND ALL WFAETHER ROAD



- c. Describe the:
- relief of the area shown on the map. (06 marks)
- The area has numerous craters e.g. Itunga crater, Kachuba, masaka etc in the south.
  - Craters have steep slopes /cliffs/escarpments e.g. Nyamuhulu etc.
  - Generally lowing area in the north is dissected by Kazinga wide valley

- Lake basins in the area e.g. North-East
  - South - East is an upland area with steep slopes
  - Lowlands in the South -West e.g. Kibona
  - There are saddles and cols separating hills in the South - East
  - Narrow / V - shaped valleys e.g. Kyambura, Katierera, Mpanga
  - Conical hills in the south East
- 
- Lowest point of the area is 3000ft above sea level
  - Highest point of the area is 4400ft in the South East
  - Amplitude of relief is 1400ft
  - Gentle slopes in the central, spurs in South East, etc.
  - Trend generally slopes from the South- East to the North-West
- ii. relationship between relief and drainage. (09marks)
- Crater lakes e.g. Kyamwiga, Katinda, Bugwagi etc. are in Craters
  - Rivers e.g. Kyambura, Kafu, Mpanga, Katerera etc. flow through valleys
  - Permanent and seasonal swamps in the South- West, North, East etc. are in lowlands or low lands in the South-West, North, East etc. are poorly drained
  - Seasonal Swamps are in craters in the East
  - Rivers e.g. Mpanga , Katerara, Kafu etc. flow from upland/ hilly areas to lowlands or uplands/ Ridges in the South - East fom watersheds .
  - Steep /Gentle slopes in the South - East and central area well drained
  - Pools in the north are in lowlands
  - Kyambura flows in a gorge/narrow steep sided valleys.
- d. Explain the value of craters to the national economy. (09marks)
- Tourist attraction hence source of local income and foreign exchange to develop socio-economic infrastructure
  - Salt extract/ Quarrying for local income, export for foreign exchange, used industries e.g. tanneries and chemical industries, food preservation etc.
  - Fishing which helps to generate local revenue
  - Used for study and research lo widen knowledge etc.
  - Agriculture /farming due to deposited and volcanic soils
  - Source of water for domestic and industrial use
  - Development of filming project
  - Transportation of salt extracted from the lake to the shoreline.





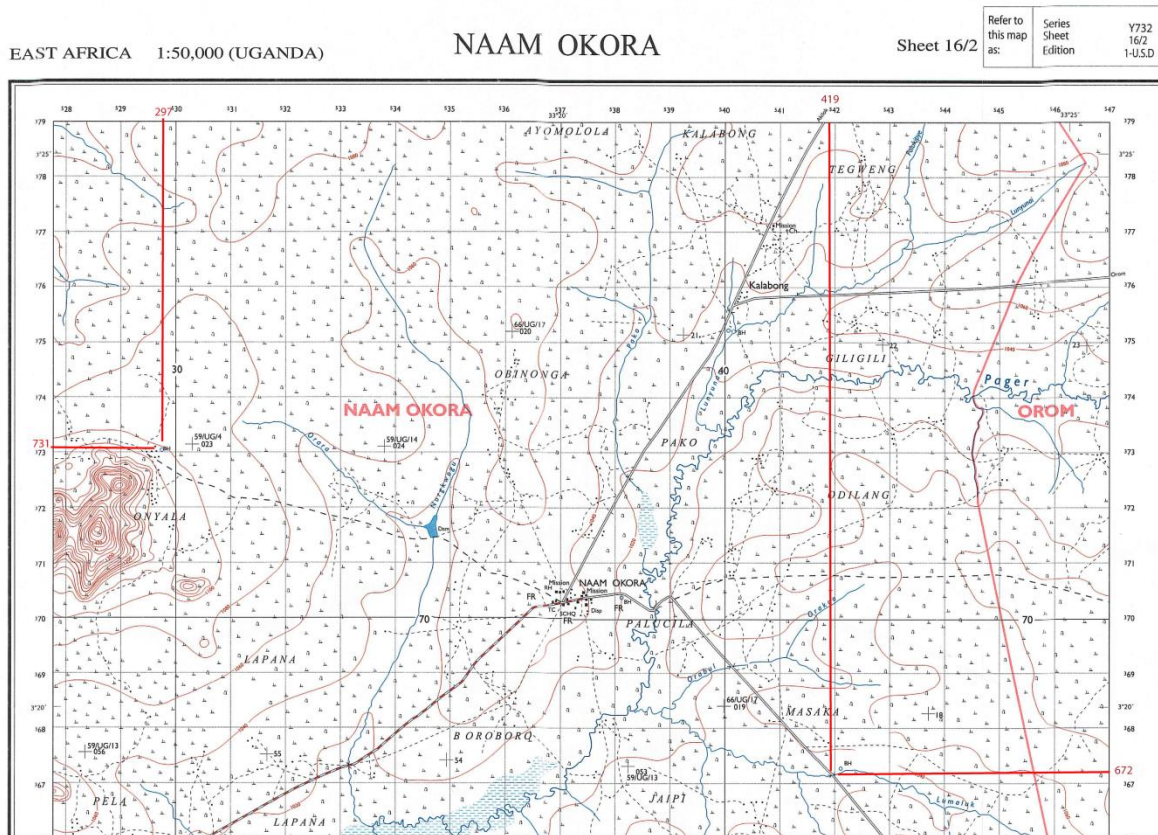
- (a) State the Grid- reference of the:  
 (i) Borehole (BH), North -East of Onyala hills. (01mark)

297731/298731/297730

- (ii) Culvert on river Lumaluk (1mark)

419672/420672

Illustrated below



- (b) (i) Describe the drainage pattern of River, Paker and its tributaries. (04 marks)

The pattern is dendritic i.e. tree- like where the main tributaries are joining river pager at acute angles.

Some tributaries of river pager display a trellis drainage pattern. Tributaries join the main river at almost right angles.

- (ii) Account for the drainage pattern identified in (b)(i) above. (04 marks)

**Dendritic pattern due to:**

- Gently sloping relief
- Uniform rock structure/homogeneous rock
- Reliable rainfall in large catchment area.

**Trellis pattern due to:**

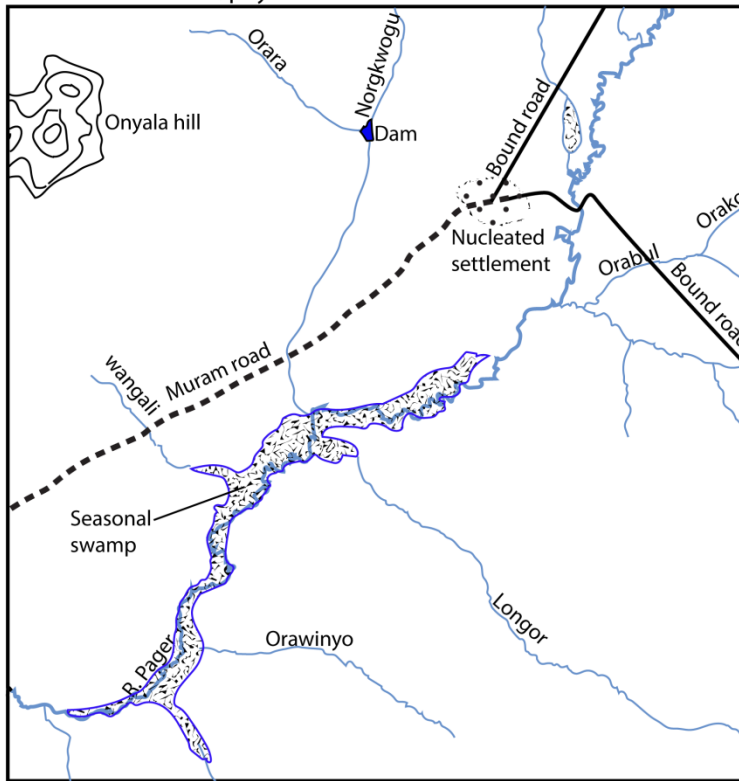
- Hard and soft rocks alternating
- Gently sloping/steep slopes
- Reliable rainfall in large catchment areas
- May be caused by faulting, river capture
- Heterogeneous rocks/rock joints

(c) Reduce the area shown on the map extract between Eastings 28 and 42 and Northings 60 and 74 by

50%. Draw its sketch map and on it mark and label:

- (i) Onyala hill,
- (ii) River Pager and its tributaries,
- (iii) seasonal swamps,
- (iv) any one dam
- (v) major communication lines,
- (vi) one area with nucleated settlement.

A reduced ketch map of NAAM OKORA between Eastings 28 and 42 and Northings 60 and 74 by 50% showing Onyala hills, R. Pager and its tributaries, seasonal swamps, a dam, major communication lines and an area with nucleated settlement/physical and human features.



(d) Explain the relationship between:

(i) Relief and transport;

- The Kitgum Matidi - Naam Okora loose surface road follows gentle slopes due to easy construction.
- The Naam Okora - Akilok and Naam Okora Kalongo dry weather roads are on gentle slopes due to easy construction.
- Motorable tracks e.g. Onyala hill-Naam Okora are also in gentle slopes due to easy construction.
- Roads across valleys e.g. Norgkwogil, Pager etc. with the help of bridges and culverts for easy accessibility.
- Foot hills of Onyala hill have foot tracks for easy accessibility.
- Generally, the steep slopes of Onyala hill are devoid of communication lines due to difficult construction.

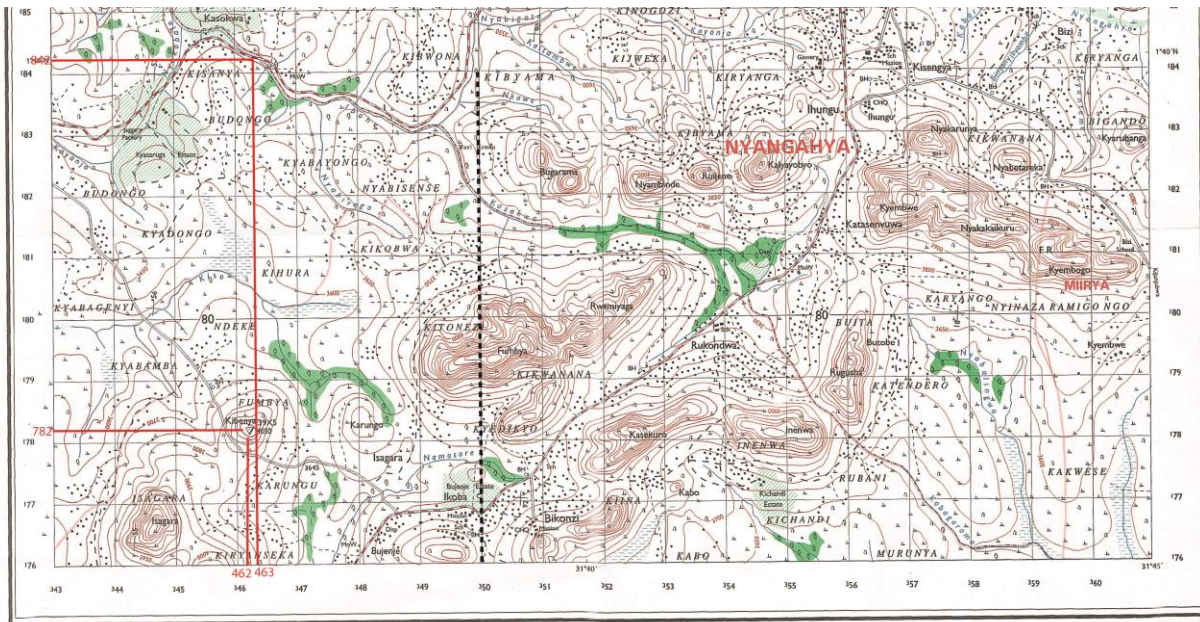
(ii) transport and settlements.

- Places where roads converge / and junction attract settlements for easy accessibility and trade e.g. Naam Okora and Kalabong.
- Along the motorable and foot tracks, there are settlements for easy accessibility e.g. Obinoga, Tegweng, Longor etc.
- Places with no roads foot tracks etc. are avoided for settlement due to remoteness etc.





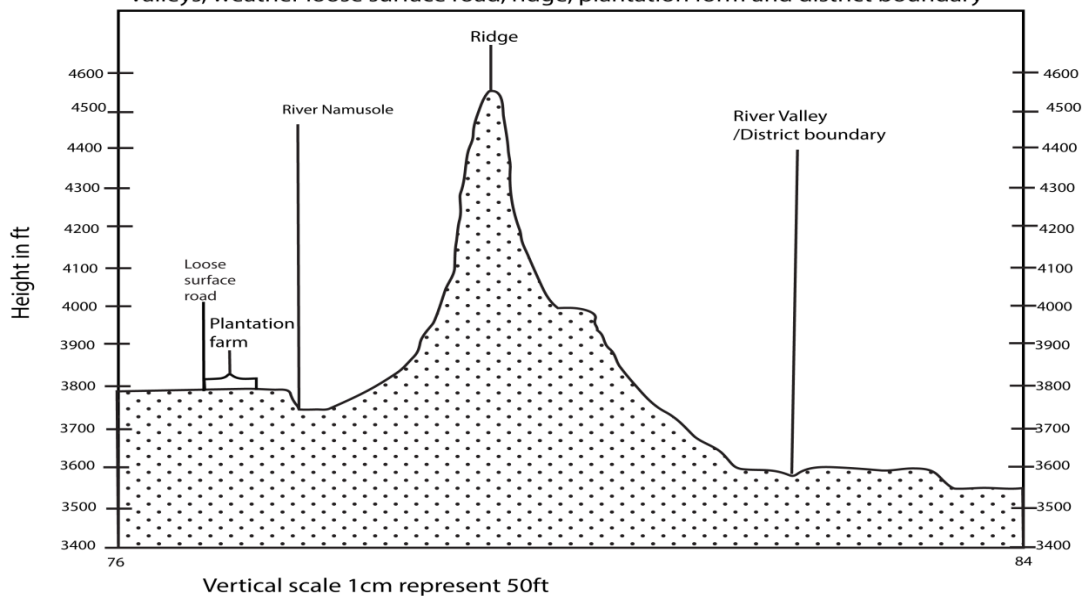
Part of the map showing the required features for (a) and (b)



- (a) (i) Identify the man-made feature found at grid reference 462782. (01mark)  
(ii) State the grid reference of the culvert found on River Ibohe north of Masindi town.
- (b) Draw a relief section along Easting 50 between Northings 76 and 84 and on it, mark and name:  
(i) a ridge,  
(ii) any **two** river valleys,  
(iii) all weather loose surface road,  
(iv) district boundary,  
(v) plantation farm. (08 marks)

Draw a cross section along the dotted line in the part of the map above and compare

Acrosssection of Masindi along Easting 50 between Northing 76 and 84 showing river valleys, weather loose surface road, ridge, plantation form and district boundary



(c) Giving evidence from the map extract, outline the functions of Masindi town.

- Commercial centre evidenced by market and Masindi town
- An industrial centre evidenced by a sawmill and ginnery
- Education centre evidenced by schools
- Tourist centre evidenced by Hotel, rest house
- Administrative center evidenced by ADC, police station, prison
- Residential centre evidenced by settlements
- Transport and communication centre evidenced by post office and roads
- A health/ medical centre evidenced by a hospital
- Religious centre evidenced by church and mission
- Agricultural centre evidenced by plantations
- Recreation centre evidenced by hotel
- Burial centre evidenced by cemetery, etc.

(d) Describe the:

(i) Relief of the area,

- Numerous ridges e.g. Fumbya, Inenwa, kibenya, Isagara etc.
- Numerous conical hills e.g. Bugarama, Kibenyi, Isagara etc.
- Hills and ridge peaks are separated by saddles and cols e.g. between Nyambinde and Ruigene peaks
- There are flat topped hills and ridges e.g. karungo, kyabongo etc.
- Most hills and ridges in the south and East have steep slopes
- Numerous spurs between valleys in most areas
- Lowlands in the area e.g. west
- The North East, central and west are generally gently sloping.
- Numerous V - shaped valleys e.g. Nyabalingwa in the South East, Nkowe in the central
- Broad valleys e.g. Kiso in South West
- Highest point of the area is 4600ft above sea level at Fumya ridge
- Lowest point is 3400ft in the North West
- Average height is 1200ft.

(ii) relationship between relief and drainage.

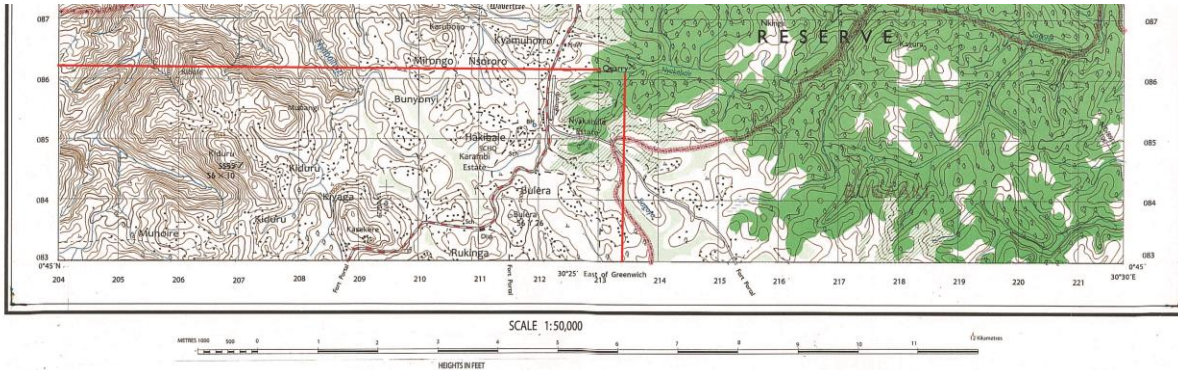
- Rivers e.g. Iboke, kiso etc. flow through valleys.
- Ridges and conical hills in the south east, North East, South and part of the central from watershed of rivers/Rivers flow from high altitude areas to low altitude areas
- Steep slopes in the North East, central and North West are well drained
- Gentle slopes in the North East, central and North West are well drained
- Lowlands are poorly drained with seasonal and permanent swamps.
- Seasonal and permanent swamps are in broad valleys in the west, South East and East
- Wide valleys are poorly drained.





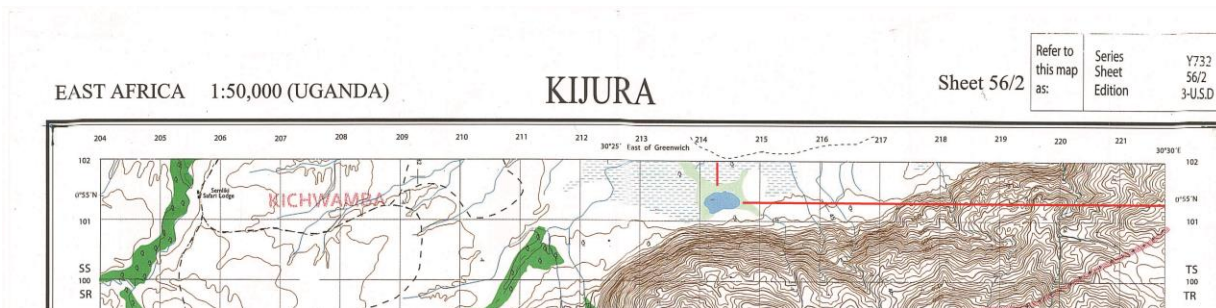
(a) (i) State the grid reference of the quarry to the North of Nyakabale Estate. (01mark)

135862/136862/135863/136863



(ii) Identify the drainage feature found at grid reference 144013. (01mark)

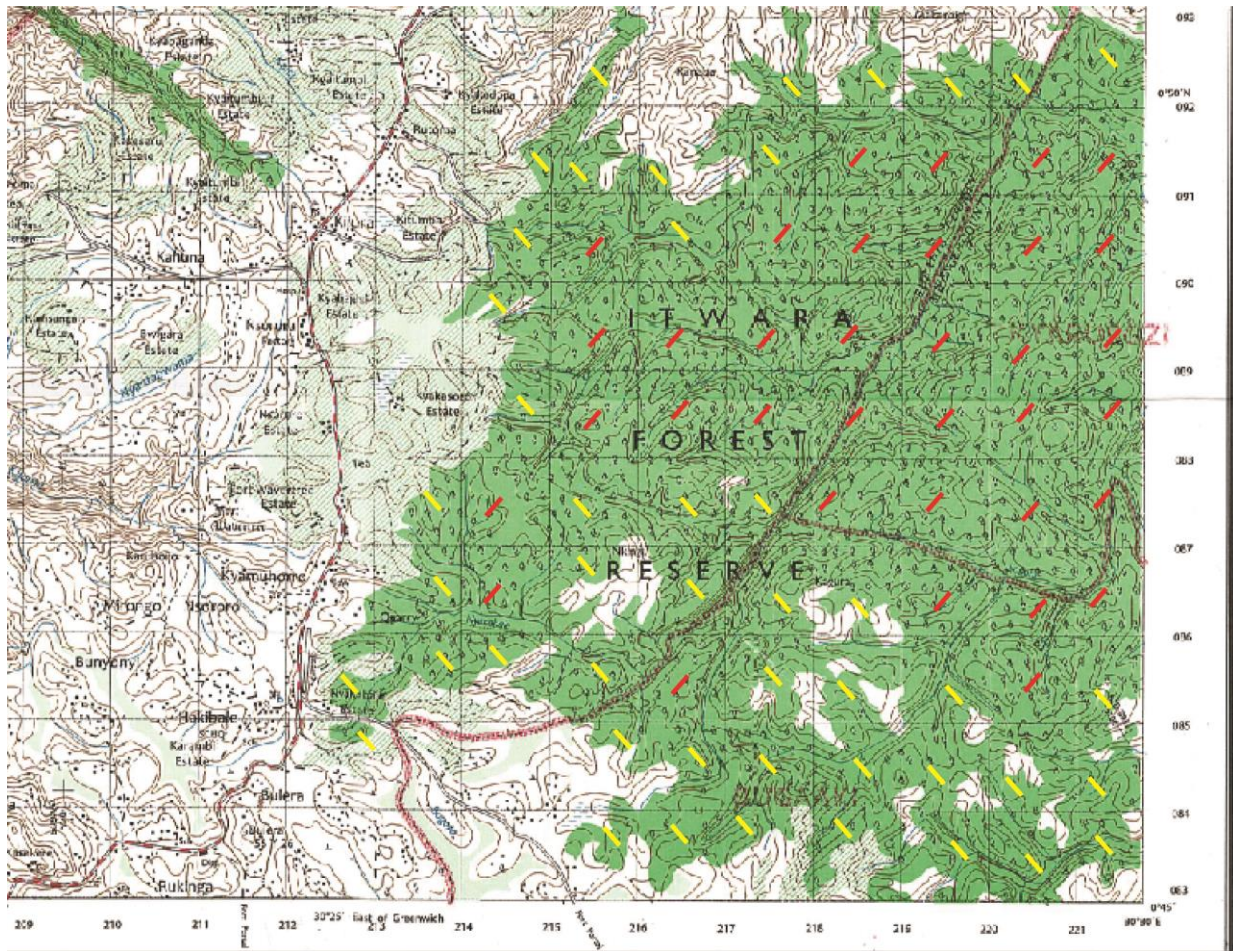
Lake/pond/reservoir



(b) Calculate the area covered by Itwara Forest Reserve. (03marks)

$$\begin{aligned}
 \text{Area} &= \text{full square} + \frac{\text{half squares}}{2} \text{ km}^2 \\
 &= 38 + \frac{61}{2} \\
 &= 38 + 30.5 \\
 &= 68.5 \text{ km}^2 \quad (57.5 - 77.5) \text{ km}^2
 \end{aligned}$$



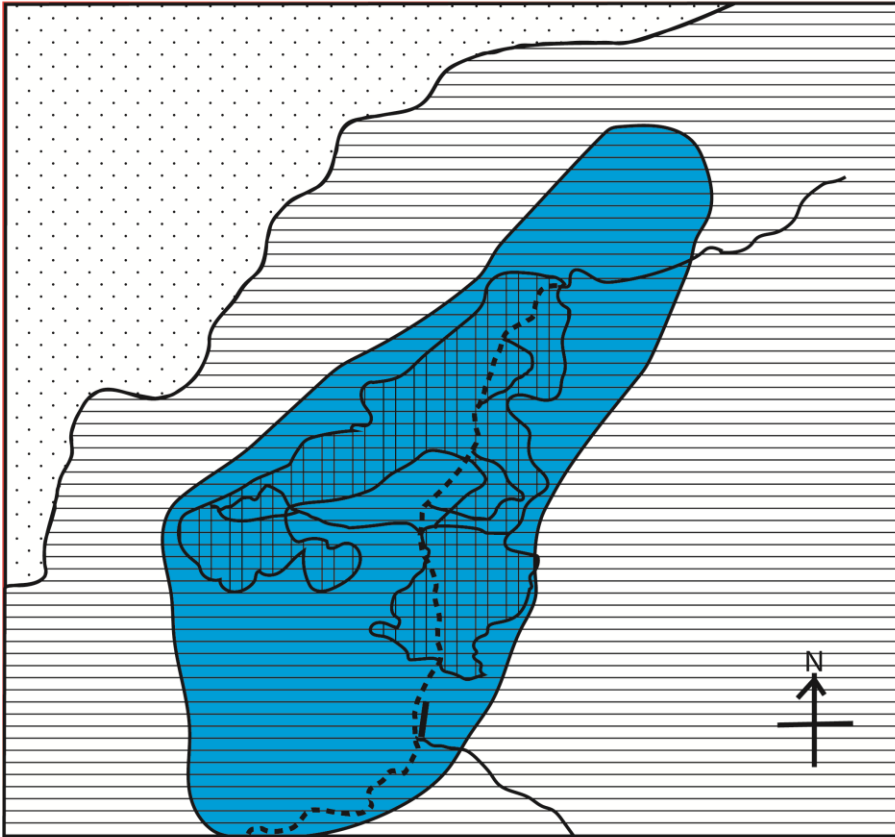


(c) Draw a sketch map of the area shown on the map and on it, mark and name:

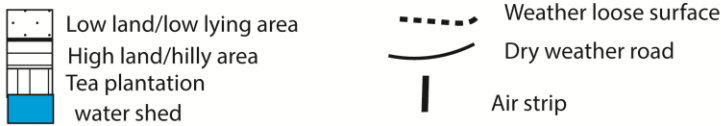
- (i) any **two** physiographic regions,
- (ii) all weather loose surface and dry weather roads,
- (iii) water shed,
- (iv) tea plantations,**
- (v) airstrip. (10marks)



Sketch map showing two physiographic regions, all weather loose surface and dry weather roads, water shed, tea plantation, and air strip



Key



(d) Describe the:

- (i) relief of the area,(04marks)
- Highland/mountainous/ upland/ hilly areas in the South-East, East.
  - Lowland/ low lying areas in the North West
  - Steep slopes in the Central, North East, South East etc.
  - Gentle slopes e.g. Saddles and cols in highland area,;
  - Craters at Kasekere, Rukinga.
  - Dissected hills in the South.
  - The area has conical hills.
  - The area has escarpment.
  - The area has spurs.

- Lake Basin in the North.
  - Narrow valleys in the highland area e.g. the river Kijama valley
  - Highest point is 5559 ft. at Kiduna.
  - Lowest point is 2250 near the lake.
  - Amplitude is 3309 ft.
- (ii) relationship between relief and drainage in the area shown on the map extract. (06marks)
- Low lying area is occupied with swamps in the North.
  - Rivers are flowing from upland/ highland/ watershed to the lowlands near Kahuma.
  - Rivers flow through narrow valleys along the steep slopes e.g. River Wamikira
  - Gentle slopes are well drained e.g. in Toro Game Reserve.
  - The basin / depression is filled with a lake in the North.
  - Gentle slopes have dendritic drainage patterns e.g. River Mugial.

Thank you

Dr. Bbosa Science