

4. STATISTICAL METHODS

The topic entails:-

- (i) *Defining statistics*
- (ii) *Identifying types and sources of statistical data*
- (iii) *Identifying and describing methods of collecting and recording data.*
- (iv) *Analysis, interpretation and presentation of statistical data using appropriate graphical methods.*
- (v) *Explaining the advantages of each method of data presentation.*

1. Study the table below and answer questions that follow:-

CROP	1978	1979	1980	1981	1982
COFFEE	1000	990	870	830	840
TEA	750	700	650	700	600
PYRETHRUM	300	250	350	400	450
MAIZE	500	450	550	600	350

(a) (i) Using 1cm to represent 500 tons, draw a compound bar graph to represent the data.

(ii) Give **two** disadvantages of using the method to represent statistical data.

2. The table below shows leading import crops by value (Kshs. Million). Use it to answer questions a – c

	CROP			
Year	Un milled wheat	Maize	Rice	Wheat flour
2000	6,989	4,664	1,968	180
2001	7,515	3,342	2,619	639
2002	5,577	229	2,104	237
2003	6,099	1,417	2,981	168
2004	6,754	4,647	3,659	200

(a) (i) Using a scale of 1cm represents 100,000 , draw a comparative bar graph to represent the data in the table above

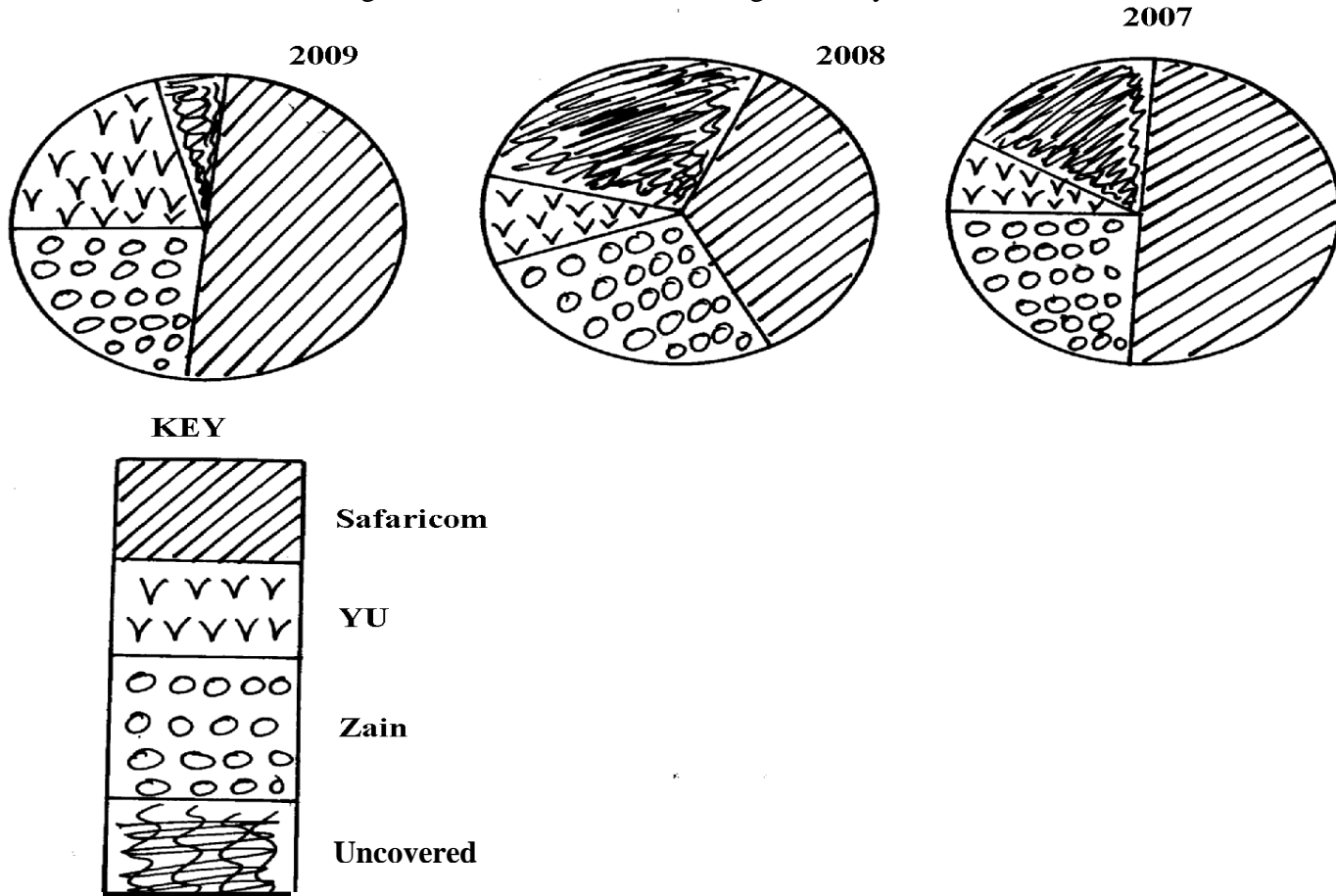
(ii) Give **three** advantages of using comparative bar graphs

(b) Explain **three** reasons why Kenya is a producer of the commodities shown in the table above yet she imports the same

3. The table below shows milk production in '000 units in selected Districts

District	1982	1992	2002
Trans nzoia	24	26	40
Kiambu	23	25	31
Meru	25	27	32
Bungoma	12	14	20

- a) i) Using a vertical scale of 1 centimeter to represent 10,000 units, draw a compound bar graph to represent the above given data
4. Study the figure below and use it to answer question 6. The figure depicts proportional divided circles showing the extend of network coverage in Kenya between 2007 and 2009



- a) i) State **four** deductions that can be made from the above representation
- ii) State **three** advantages of using proportional circles in representing data
5. The table below shows four principal crops produced in Kenya in the years 2000 and 2001. Use it to answer questions.

CROP	AMOUNT IN METRIC TONS	
YEAR	2000	2001
Wheat	70,000	13,000
Maize	200,000	370,000

Coffee	98,000	55,000
Tea	240,000	295,00

- (a) (i) Using a radius of 5 cm, draw a pie chart to represent crop production in the year 2000.
- (ii) State **two** advantages of using pie charts.
- (b) Calculate the percentage increase in wheat production between the years 2000 and 2001.
6. Study the data given and use it to draw a pie chart showing mineral production in Kenya;

Mineral	Amount (000 tonnes)
Gold	26
Flouspar	14
Soda ash	32
Zink	28

- (a) Using a radius of 5cm, draw a pie chart to represent the above data
- (b) List **three** advantages of using a pie chart in representing data