**4. STATISTICAL METHODS**

 ***The topic entails:-***

1. ***Defining statistics***
2. ***Identifying types and sources of statistical data***
3. ***Identifying and describing methods of collecting and recording data.***
4. ***Analysis, interpretation and presentation of statistical data using appropriate graphical methods.***
5. ***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** |
| COFFEETEAPYRETHRUMMAIZE | 1000750300500 | 990700250450 | 870650350550 | 830700400600 | 840600450350 |

 (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 is 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 suing 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

**Uncovered**

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 |
| WheatMaizeCoffeeTea | 70,000200,00098,000240,000 | 13,000370,00055,000295,00 |

 (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