



**SNS COLLEGE OF TECHNOLOGY**  
**Coimbatore-35.**



**(An Autonomous Institution)**

**DEPARTMENT OF MATHEMATICS**

**23MAT601-Applied Statistics for Data Analysis**

**UNIT – I STATISTICAL DATA REPRESENTATIONS**

**Part B ( 2 Marks)**

1. Sketch the percentage bar diagram for the following data and identify which company expenditure is high?

Expenditure	Company A	Company B
Wages	450	700
Materials	200	500
Power	75	350
Maintenance	80	175
Profit	195	225
Total	1000	2000

2. The following table gives the assets of the issue department of the reserve bank of India. Sketch the following using suitable diagram.

	Assets of the Issue Department in Lakhs of rupee			
	Gold coin & Bullion	Foreign securities	Rupee coin	Rupee Coin
1971-72	44,42	3,1911	22,23	1,39,33
1972-73	44,42	6,43,52	14,28	85,45
1973-74	44,42	8,63,73	13,52	57,95
1974-75	44,42	10,61,26	15,53	57,84
1975-76	44,42	11,33,88	19,43	57,84

3. Following frequency distribution table shows intelligence quotients of 1000 children

I.Q	35-44	45-54	55-64	65-74	75-84	95-104	105-114	85-94
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No. of children	29	83	221	139	142	90	162	134
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Construct a histogram and frequency polygon to represent the above data.

4. The following data gives the weight of students in a University. Compute the median for the following data using Ogives

Weight (kg)	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80
No. of students	5	17	22	45	51	31	20	9

5. For the following , Interpret the data using Bar chart ,Subdivided chart and Percentage chart

Price of a Commodity	I Rs 3 per unit	II Rs 4 per unit	III Rs 5 per unit
Quantity sold	100	80	70
Value of Raw Materials	Rs 115	Rs 120	Rs 130
Expenses of Management	Rs 30	Rs 30	Rs 35
Expenses on Labour	Rs 40	Rs 45	Rs 55
Other Expenses	Rs 15	Rs 25	Rs 30
Profits	Rs 100	Rs 100	Rs 100

6. Explain the method of constructing Histogram and Frequency Polygon. Which, out of these, is better representative of frequencies of (i) a particular group and (ii) whole group?
7. Represent the following data by a suitable diagram showing the difference between proceeds and costs.

Proceeds and Costs of a firm (in thousands of rupees)

Year	1950	1951	1952	1953	1954	1955
Total Proceeds	22.0	27.3	28.2	30.3	32.7	33.3
Total costs	19.5	21.7	30.0	25.6	26.1	34.2

8. Explain the concept of subdivided bar diagram and describe its advantages in representing data.
9. The data shows the number of students in college A and college B that use mobile phones from Samsung, Oppo and Apple.

Product	College A	College B
Samsung	590	800
Oppo	880	750
Apple	100	150

Represent the data by means of a sub divided bar chart.

- 10.. A scholar conducted a survey among the population in a town. The results are as follows.

Males	Females	Girls	Boys	Total
2000	1200	4200	2000	10000

Based on the survey, create a pie diagram. Also analyze the advantages and disadvantages of diagrammatic representation of data

11. Anil is a Mathematics teacher. After Periodic test, he asks students to collect the mathematics marks of all the students of the class. He prepares the frequency distribution table using the collected marks.

Marks	10-20	20-30	30-40	40-50	50-60	60-70
No of Students	2	5	7	12	9	4

Construct the histogram and frequency curve. Also, Analysis the median for the given data by using Ogives.

12. Draw a pie diagram for the following data representing the principal exporting countries of cotton

USA	India	Egypt	Brasil	China
6367	2999	1688	650	202

Also analyze the advantages and disadvantages of graphical representation of data

13. A random survey of the number of children of various age groups playing in a park was found as follows.

Age	1-3	3-5	5-7	7-9	9-11	11-13
No of children	5	3	6	12	9	10

Construct the histogram and frequency curve. Also, Analysis the median for the given data by using Ogives