UNI II - QUANTITATIVE ABILITY II

Data Interpretation

Problem 1: Bar Chart Analysis

Consider the following bar chart showing the number of books sold (in thousands) over five months.

Month	Books Sold (Thousands)
January	50
February	40
March	60
April	70
May	90

Calculate the total number of books sold over these five months.

Solution:

To find the total number of books sold, sum up the values from each month:

[text{Total Books Sold} = 50 + 40 + 60 + 70 + 90]

[text{Total Books Sold} = 310 text{ thousand}]

So, the total number of books sold over these five months is 310,000.

Problem 2: Pie Chart Interpretation

A pie chart shows the distribution of a company's annual revenue among five departments as follows:

- Marketing: 25%

- Sales: 30%

- R&D: 15%

- HR: 10%

- Administration: 20%

If the total annual revenue is $2 million, calculate the revenue for the Sales department.

Solution:

To find the revenue for the Sales department, calculate 30% of the total revenue:

[text{Sales Revenue} = 30% times 2,000,000]

[text{Sales Revenue} = 0.30 times 2,000,000]

[text{Sales Revenue} = 600,000]

So, the revenue for the Sales department is $600,000.

Problem 3: Line Graph Analysis

A line graph shows the number of visitors (in thousands) to a website over four quarters:

- Q1: 120

- Q2: 150

- Q3: 180

- Q4: 160

Calculate the average number of visitors per quarter.

Solution:

To find the average number of visitors, sum the visitors for each quarter and divide by the number of quarters:

[text{Total Visitors} = 120 + 150 + 180 + 160]

[text{Total Visitors} = 610 text{ thousand}]

[text{Average Visitors} = frac{text{Total Visitors}}{text{Number of Quarters}}]

[text{Average Visitors} = frac{610}{4}]

[text{Average Visitors} = 152.5 text{ thousand}]

So, the average number of visitors per quarter is 152,500.

Problem 4: Table Interpretation

Consider the following table showing the number of units sold by a company in different regions over a year:

Region	Units Sold
North	1200
South	1500
East	1300
West	1100

Calculate the percentage of total sales represented by the South region.

Solution:

First, find the total units sold:

[text{Total Units Sold} = 1200 + 1500 + 1300 + 1100]

[text{Total Units Sold} = 5100]

Next, calculate the percentage for the South region:

[text{Percentage for South} = left(frac{1500}{5100}right) times 100]

[text{Percentage for South} approx 29.41%]

So, the South region represents approximately 29.41% of the total sales.

Problem 5: Histogram Analysis

A histogram shows the distribution of test scores in a class. The score ranges and frequencies are as follows:

- 0-10: 5 students
- 11-20: 10 students
- 21-30: 15 students
- 31-40: 20 students
- 41-50: 10 students

Calculate the total number of students.

Solution:

To find the total number of students, sum up the frequencies from each score range:

[text{Total Students} = 5 + 10 + 15 + 20 + 10]

[text{Total Students} = 60]

So, the total number of students is 60.