Provincial Department of Education-Sabaragamuwa- Week School

Week – 36

Subject: Mathematics

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Grade - 10

26 Frequency Distribution

- **Continuous data**
  Data such as length, weight, etc, which can take any value within a range are called continuous data.

- **Discrete data**
  Data such as number of students, marks, etc which take only integral values are called discrete data.

Grouped frequency distribution

Mid value of a class interval
The mid value of a class interval is found by adding together the upper value and the lower value of the class interval and then dividing this sum by 2.
Ex.

$$\frac{0+8}{2} = 4$$

Complete the mid value column

Class interval	Mid value	Frequency
00 - 08	4	09
09 - 17		12
18 - 26		10
27 - 35		19
36 - 44		11
45 - 53		26
54 - 62		13

- Size of the class interval 09 - 17 is 9.
- Range of the data distribution is 62
  62- 00 =62
- Modal class 45 – 53

- **Do the exercise 26.1 on the pages 89, 90 in your text book.**

Calculating the mean of grouped data

Class interval	Mid value (x)	Frequency (f)	$(f \times x)$
00 – 10	5	3	15
10 – 20	15	5	75
20 – 30	25	7	175
30 – 40	35	4	140
40 – 50	45	1	45
		$\Sigma f = 20$	$\Sigma fx = 450$

$$\text{Mean} = \frac{\Sigma fx}{\Sigma f}$$

$$\frac{450}{20} = 22.5$$

- **Do the exercise 26.2 on the pages 92, 93 in your text book.**