

## PATAN MULTIPLE CAMPUS

### Practical – 4 Descriptive Statistics

Roll No.: 23  
Program: BIT  
Subject: Basic Statistics

Date: 2081-05-30  
Semester: 2<sup>nd</sup>  
Section: A

**Question:** Find no. of observation, minimum value, maximum value, mean, median, quartiles, range, interquartile range, quartile deviation, coefficient of variation, skewness, kurtosis and outlier value of the following observations

Age	18	21	19	20	22	17	19	20	23
Height	150	162	158	145	175	152	154	145	165
Weight	54	65	66	54	85	55	56	59	65
GPA	3.32	4.00	2.56	3.21	2.96	2.80	3.56	3.69	3.37
Expenditure	500	1100	300	550	5000	1500	1800	2000	2150

**Working Expressions:**

## Calculation:

### i. Data

Age	18	21	19	20	22	17	19	20	23
Height	150	162	158	145	175	152	154	145	165
Weight	54	65	66	54	85	55	56	59	65
GPA	3.32	4.00	2.56	3.21	2.96	2.80	3.56	3.69	3.37
Expenditure	500	1100	300	550	5000	1500	1800	2000	2150

### ii. Syntax

```
DATASET ACTIVATE DataSet0.  
FREQUENCIES VARIABLES=age height weight expenditure gpa  
  /FORMAT=NOTABLE  
  /NTILES=4  
  /STATISTICS=STDDEV VARIANCE RANGE MINIMUM MAXIMUM MEAN  
  MEDIAN SKEWNESS SESKEW KURTOSIS SEKURT  
  /ORDER=ANALYSIS.
```

### iii. Output

		age	height	weight	expenditure	gpa
N	Valid	9	9	9	9	9
	Missing	0	0	0	0	0
Mean		19.89	156.22	62.11	1688.89	3.2744
Median		20.00	154.00	59.00	1500.00	3.3200
Std. Deviation		1.900	9.871	9.905	1443.688	.45145
Variance		3.611	97.444	98.111	2084236.111	.204
Skewness		.202	.725	1.722	1.641	-.043
Std. Error of Skewness		.717	.717	.717	.717	.717
Kurtosis		-.490	.082	3.430	3.325	-.478
Std. Error of Kurtosis		1.400	1.400	1.400	1.400	1.400
Range		6	30	31	4700	1.44
Minimum		17	145	54	300	2.56
Maximum		23	175	85	5000	4.00
Percentiles	25	18.50	147.50	54.50	525.00	2.8800
	50	20.00	154.00	59.00	1500.00	3.3200
	75	21.50	163.50	65.50	2225.00	3.6250