Central Tendency – IQR Analysis Report

Output Result:

	sl_no	ssc_p	hsc_p	degree_p	etest_p	mba_p	salary
Mean	108.0	67.303395	66.333163	66.370186	72.100558	62.278186	288655.405405
Median	108.0	67.0	65.0	66.0	71.0	62.0	265000.0
Mode	1	62.0	63.0	65.0	60.0	56.7	300000.0
Q1:25%	54.5	60.6	60.9	61.0	60.0	57.945	240000.0
Q2:50%	108.0	67.0	65.0	66.0	71.0	62.0	265000.0
Q3:75%	161.5	75.7	73.0	72.0	83.5	66.255	300000.0
99%	212.86	87.0	91.86	83.86	97.0	76.1142	NaN
Q4:100%	215.0	89.4	97.7	91.0	98.0	77.89	940000.0
IQR	107.0	15.1	12.1	11.0	23.5	8.31	60000.0
1.5Rule	160.5	22.65	18.15	16.5	35.25	12.465	90000.0
Lesser	-106.0	37.95	42.75	44.5	24.75	45.48	150000.0
Greater	322.0	98.35	91.15	88.5	118.75	78.72	390000.0
Min	1	40.89	37.0	50.0	50.0	51.21	200000.0
Max	215	89.4	97.7	91.0	98.0	77.89	940000.0

Summary of IQR Analysis

SSLC

- The Interquartile Range (IQR), calculated using the formula **Q3 – Q1**, is **15.1**.
- The 1.5 Rule value, computed using the **1.5 × IQR**, is **22.65**.
- The **Lesser Outlier Boundary**, computed using **Q1 – (1.5 × IQR)**, is **37.96**.
- The **Greater Outlier Boundary**, computed using **Q3 + (1.5 × IQR)**, is **98.35**.
- The minimum SSLC mark in the dataset is **40.89**, which lies **above** the lower boundary value of **37.96**. Therefore, **no lesser outliers** are present in the dataset.
- The maximum SSLC mark in the dataset is **89.4**, which lies **below** the upper boundary value of **98.35**. Therefore, **no greater outliers** are present in the dataset.

HSC

- The Interquartile Range (IQR), calculated using the formula **Q3 – Q1**, is **12.1**.
- The 1.5 Rule value, computed using the **1.5 × IQR**, is **18.15**.
- The **Lesser Outlier Boundary**, computed using **Q1 – (1.5 × IQR)**, is **42.75**.
- The **Greater Outlier Boundary**, computed using **Q3 + (1.5 × IQR)**, is **91.15**.
- The minimum HSC mark in the dataset is **37.0**, which falls **below** the lesser boundary value of **42.75**, indicating the presence of **lesser outliers**.
- The maximum HSC mark in the dataset is **97.7**, which falls **above** the greater boundary value of **91.15**, indicating the presence of **greater outliers**.

Degree

- The Interquartile Range (IQR), calculated using the formula **Q3 – Q1**, is **11.1**.
- The 1.5 Rule value, computed using the **1.5 × IQR**, is **16.5**.
- The **Lesser Outlier Boundary**, computed using **Q1 – (1.5 × IQR)**, is **44.5**.
- The **Greater Outlier Boundary**, computed using **Q3 + (1.5 × IQR)**, is **88.5**.
- The minimum Degree mark in the dataset is **50.0**, which lies **above** the lesser boundary value of **44.5**. Therefore, **no lesser outliers** are present in the dataset.
- The maximum Degree mark in the dataset is **91.0**, which falls **above** the greater boundary value of **88.5**, indicating the presence of **greater outliers**.

Entrance Test

- The Interquartile Range (IQR), calculated using the formula **Q3 – Q1**, is **23.5**.
- The 1.5 Rule value, computed using the **1.5 × IQR**, is **35.25**.
- The **Lesser Outlier Boundary**, computed using **Q1 – (1.5 × IQR)**, is **24.75**.
- The **Greater Outlier Boundary**, computed using **Q3 + (1.5 × IQR)**, is **118.75**.
- The minimum Entrance mark in the dataset is **50.0**, which lies **above** the lower boundary value of **24.75**. Therefore, **no lesser outliers** are present in the dataset.
- The maximum Entrance mark in the dataset is **98.8**, which lies **below** the upper boundary value of **118.75**. Therefore, **no greater outliers** are present in the dataset.

MBA

- The Interquartile Range (IQR), calculated using the formula **Q3 – Q1**, is **8.31**.
- The 1.5 Rule value, computed using the **1.5 × IQR**, is **12.465**.
- The **Lesser Outlier Boundary**, computed using **Q1 – (1.5 × IQR)**, is **45.48**.
- The **Greater Outlier Boundary**, computed using **Q3 + (1.5 × IQR)**, is **78.72**.
- The minimum MBA mark in the dataset is **51.21**, which lies **above** the lower boundary value of **45.48**. Therefore, **no lesser outliers** are present in the dataset.
- The maximum MBA mark in the dataset is **77.89**, which lies **below** the upper boundary value of **78.72**. Therefore, **no greater outliers** are present in the dataset.
