



**Question No: 1 ( Marks: 10 )**

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**Question Instructions:**

- Enter or Copy/Paste the given question data into MS Excel.
- Then, apply the appropriate functions / calculations to get the required results.
- For more clarity, **HIGHLIGHT** your answers
- **In the end, Copy/Paste your answers/results into this Word file.**

=====

**Which tool you should use?**

- In this question, **PREFERABLY** use **RealStat** or **Analysis ToolPak** Excel Addin to get the required results.

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**Question Statement/Data:** (Marks = 2+2+2+2+2 = 10)

Following is the match history of a University Cricket team.  
Find/calculate: the following summary of scores.

1. Mean
2. Median
3. Mode
4. Standard Deviation
5. Variance

History	Score
Match 1	241
Match 2	266
Match 3	250
Match 4	272
Match 5	273
Match 6	309
Match 7	302
Match 8	305
Match 9	309
Match 10	281
Match 11	317
Match 12	227
Match 13	224
Match 14	266
Match 15	250
Match 16	250
Match 17	284

Match 18	266
Match 19	250
Match 20	238

===== END OF THIS QUESTION =====

**Solution/Answer:** (Post your results/answer of this question below)

Mean      269  
Median    266  
Mode      250  
S.D        28.37  
Variance   804.632

<b>1. Mean</b>	<b>269</b>
<b>2. Median</b>	<b>266</b>
<b>3. Mode</b>	<b>250</b>
<b>4. Standard Deviation</b>	<b>28.37</b>
<b>5. Variance</b>	<b>804.632</b>

**Question No: 2 ( Marks: 10 )**

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**Question Instructions:**

- Enter or Copy/Paste the given question data into MS Excel.
- Then, open this data from SPSS
- Apply the appropriate analysis in SPSS to get the required results.
- From the output window, Copy/Paste the “relevant” analysis table in this Word file.
- Interpret/Explain/Comment about your findings/answers/results, if needed.

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**Which tool you should use?**

- *In this question, For analysis use SPSS*

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**Question Statement/Data:** (Marks = 2+ 2 +2 + 2 + 2 = 10)

The body blood pressure (bp) was measured for 30 people of different ages. A doctor is interested to know the following information of the data.

1. Mean
2. Range
3. Standard deviation
4. Skewness
5. Kurtosis

Patient No	Blood Pressure	Age
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1	210	72
2	140	58
3	110	39
4	177	59
5	109	44
6	112	31
7	187	69
8	188	36
9	113	43
10	194	64
11	108	48
12	200	53
13	133	79
14	160	36
15	184	74
16	136	36
17	191	58
18	133	61
19	151	79
20	114	57
21	124	32
22	116	72
23	110	47
24	118	37
25	199	50
26	173	46
27	133	38
28	152	68
29	125	60
30	206	70

===== END OF THIS QUESTION =====

**Solution/Answer:** (Post your results/answer of this question below)

**Descriptive Statistics**

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Blood Pressure	30	102	108	210	150.20	35.225	.336	.427	-1.480	.833
Age	30	48	31	79	53.87	14.818	.106	.427	-1.238	.833
Valid N (listwise)	30									

BLOOD	AGE
1. Range : 102	48
2. S.D : 34.63	14.81782
3. Mean : 150.2	53.86667
4. Skewness : 0.336032	0.10621
5. Kurtosis : -1.48019	-1.23754

**Range= 102**  
**S.D=34.63**  
**Mean=150.2**  
**Skewness=0.336032**  
**Kurtosis= -1.48019**

**Question No: 3 ( Marks: 10 )**

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**Question Instructions:**

- Enter or Copy/Paste the given question data into MS Excel.
- Then, apply the appropriate functions / calculations to get the required results.
- For more clarity, If needed, highlight the answers
- **In the end, Copy/Paste your Excel working / answers/ charts etc in this Word file.**

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**Which tool you should use?**

- *In this question, **PREFERABLY use only Excel commands.***
- *(If some issue, then you may use RealStat or SPC Chart Addin)*

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**Question Statement/Data:** (Marks = 1+1+2+4+2 = 10)

For the given data, Find/calculate:

1. Standard Deviation
2. Central Line (CL)
3. Upper Control Limit (UCL) and Lower Control Limit (LCL)
4. By using the above calculations, draw the Control Chart of the given data.  
If needed, adjust its axis to make it more clear and visible.
5. Tell whether the process is in control or out of control?

Data #	Y1	Y2	Y3	Y4	Y5
1	146	145	141	109	141
2	115	116	128	133	118
3	147	127	148	101	138
4	103	149	149	124	116
5	116	121	142	146	114
6	103	146	124	122	105
7	125	145	135	138	103
8	122	125	121	136	121
9	140	121	131	121	135
10	139	124	144	123	133
11	147	141	112	120	150

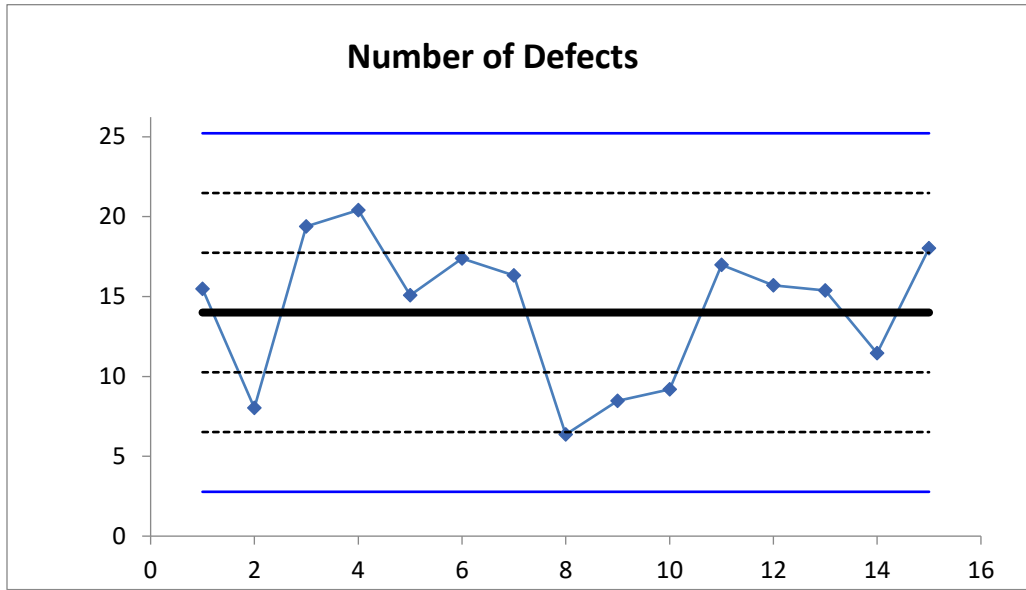
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12	115	124	150	134	111
13	117	149	125	144	116
14	138	136	126	110	121
15	144	138	142	132	100

----- END OF THIS QUESTION -----

**Solution/Answer: (Post your results/answer of this question below)**

S.D	n	Index	c-hat	SD	LCL	-2 SD	-1 SD	Centerline	+ 1 SD	+ 2 SD	UCL
15.48548	1	1	15.48548	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
8.031189	1	2	8.031189	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
19.38298	1	3	19.38298	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
20.41323	1	4	20.41323	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
15.07315	1	5	15.07315	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
17.39253	1	6	17.39253	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
16.31564	1	7	16.31564	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
6.363961	1	8	6.363961	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
8.473488	1	9	8.473488	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
9.181503	1	10	9.181503	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
16.98529	1	11	16.98529	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
15.70669	1	12	15.70669	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
15.38506	1	13	15.38506	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
11.45426	1	14	11.45426	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497
18.0333	1	15	18.0333	3.741657	2.775028	6.516685	10.25834	14	17.74166	21.48331	25.22497



The all points are in between LCL and UCL . So the chart is in controlled.

**Question No: 4 ( Marks: 10 )**

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- Then, apply the appropriate functions / calculations to get the required results.
- For more clarity, If needed, highlight the answers
- In the end, Copy/Paste your Excel answers/results in this MS Word file.

=====

**Which tool you should use?**

- *In this question, **PREFERABLY use only Excel commands.***

=====

**Question Statement/Data:** (Marks = 1+1+1+4+3 = 10)

For the given data, Find/calculate:

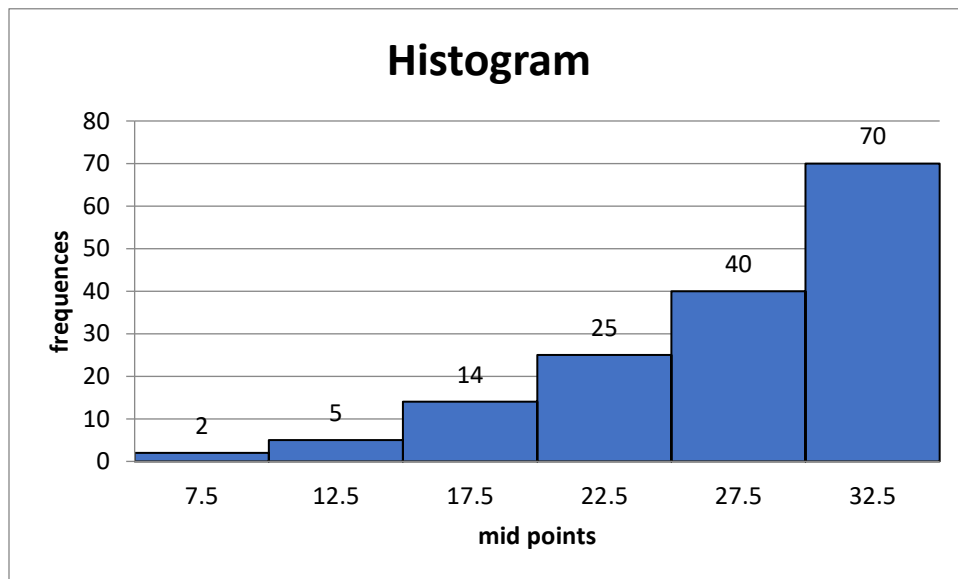
1. Midpoints of the class boundaries
2. Relative frequency of the data
3. Percentage relative frequency
4. Histogram of the data. If needed, make graph more visible and presentable.
5. Mean of the data

<b>Class Boundaries</b>	<b>Frequency</b>
5-10	2
10-15	5
15-20	14
20-25	25
25-30	40
30-35	70

**===== END OF THIS QUESTION =====**

**Solution/Answer:** (Post your results/answer of this question below)

Class Boundaries	Frequency(F)	Midpoint(X)	F.X	R.F	Percentage of R.F
5-10	2	7.5	15	0.01282	1.282
10-15	5	12.5	62.5	0.032	3.2
15-20	14	17.5	245	0.08974	8.974
20-25	25	22.5	562.5	0.16025	16.025
25-30	40	27.5	1100	0.25641	25.641
30-35	70	32.5	2275	0.44871	44.871



MEAN=27.308