

193021

No. of Printed Pages : 7

MSTL-001/S2

**POST GRADUATE DIPLOMA IN
APPLIED STATISTICS (PGDAST)**

Term-End Examination

December, 2018

BASIC STATISTICS LAB

Time : 3 Hours

Maximum Marks : 50

-
- Note :**
- (i) Attempt any *two* questions.
 - (ii) Solve the questions in Microsoft Excel.
 - (iii) Use of Formulae and Statistical Tables Booklet for PGDAST is allowed.
 - (iv) Mention hypotheses, interpretation, etc.
-

18	85	80
19	84	79
20	54	86
21	86	85
22	42	71
23	83	72
24	63	86
25	41	78
26	82	82
27	62	75
28	68	83
29	55	76
30	49	77
31	84	73
32	74	85
33	82	76
34	69	75
35	85	82

- (i) Determine which test score is more skewed and which one has more kurtosis.
- (ii) Construct the continuous frequency distribution for both test scores using suitable class width.
- (iii) Test whether averages of two test scores are equal at 5% level of significance.

(6 + 9 + 10)

2. The data on 20 employees of a company were collected to assess their efficiency. The length of their service and the efficiency score given by personnel department based on different parameters are recorded in the following table :

S. No.	Length of Service	Efficiency Score
1	5	67
2	12	85
3	8	69
4	12	83
5	7	65
6	8	72
7	9	72
8	8	73
9	10	82
10	9	75
11	7	67
12	11	78
13	11	79
14	10	79
15	11	80
16	10	85
17	6	64
18	8	84
19	10	85
20	8	74

(i) Compute the rank correlation coefficient between the length of service and efficiency score.

(ii) Draw Box-plots for both the variables. (15 + 10)

3. Following are the yields of carrots (in quintals) recorded in a field experiment having 10 strains :

Block 1

10	27.7
9	36.7
7	32.6
6	30.6
2	33.4
4	22.2
5	30.2
1	30.0
8	30.1
3	32.9

Block 2

9	35.5
5	33.0
4	25.2
1	28.0
10	34.3
6	30.0
2	29.5
3	29.0
7	31.7
8	29.7

Block 3

7	30.2
3	31.2
2	31.9
5	30.1
9	35.7
4	24.8
1	28.3
8	27.6
10	31.7
6	28.5

Block 4

1	31.8
6	31.8
4	22.3
9	32.4
2	29.8
8	29.5
3	25.8
5	27.8
7	30.8
10	27.7

Carry out the analysis at 5% level of significance. Also do pairwise testing, if needed.

25