

**Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur.
Department of STATISTICS
Class :- B. Sc. III (Semester-V)
Session: - 2018 - 2019
Unit Test I**

**Name of the Teacher: - Dr.S.S.Paliwal
Subject :- Statistics (Paper- II)**

**Date: 27/08/2018
Batch :- M8-M9(SCSM)**

S.no.	Students Full Name	Unit Test Marks(out of 20)
1	NANDINI R. JAIN	7
2	ROHINI B. POTE	A
3	SHIVANI S. AGRAWAL	11
4	NAINA B. YADAV	A
5	MANALI S. JAIN	9
6	SHRUSHTI A. KARHE	18
7	KOMAL S. BALBUDHE	A
8	POONAM D. YADAV	A
9	SWATI S.MISHRA	A
10	BHAGYASHRI D KARMENGE	11
11	ADITI P. BAGADDEO	15
12	RIYA G. ANWANE	A
13	ROSHNI R. KAMBLE	8
14	AFREEN A. BAIG	9
15	MRUNALI V. PATIL	A
16	RINKY S. GUPTA	11
17	SAKSHI H. BORKAR	11
18	SAURABH H. SHENDE	17
19	VAISHANAVI P. UMBARKAR	A
20	KUNAL A. SHEREKAR	6
21	JANVI N. RANDIVE	16
22	UTKARSHA V. HARDE	A
23	ANUJ A. DEO	8
24	ANSHUL D. JAIN	6
25	YATILESH D. MOHALE	14
26	POOJA G. HANDE	17
27	MRUDUL M. KODARLIKAR	14
28	SHUBHAM S. JAWKAR	A
29	SHIWANI S. THAKRE	9
30	PRIYA D. WALDE	9
31	POOJA S. MISAL	A
32	VRUSHALI V. KHANGAR	A



Signature of Teacher



Head

Head
Department of Statistics
Shivaji Science College
Congress Nagar, Nagpur

Bachelor of Science (B.Sc.) Semester—V Examination 2018
STATISTICS
Unit Test –I
Semester V Paper—II

Time : 45 min]

Maximum Marks : 20.

Date: 27/08/2018

NOTE: All questions carry equal marks

1. Define : (i) an estimator (ii) standard error of estimator (iii) sampling unit.
2. What are sampling errors ? Explain their causes
3. Distinguish between SRSWOR and SRSWR.
4. In case of SRSWOR, show that the probability of selecting any specified unit at say r th draw ($1 \leq r \leq n$) is equal to probability of its selection at the first draw.



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Congress Nagar, Nashik.

**Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur.
Department of STATISTICS
Class :- B. Sc. III (Semester-V)
Session: - 2018 - 2019
Unit Test II**

**Name of the Teacher: - Dr.S.S.Paliwal
Subject :- Statistics (Paper- II)**

**Date: 12/10/2018
Batch :- M8-M9(SCSM)**

S.no.	Students Full Name	Unit Test Marks(out of 20)
1	NANDINI R. JAIN	12
2	ROHINI B. POTE	A
3	SHIVANI S. AGRAWAL	15
4	NAINA B. YADAV	A
5	MANALI S. JAIN	A
6	SHRUSHTI A. KARHE	12
7	KOMAL S. BALBUDHE	13
8	POONAM D. YADAV	A
9	SWATI S.MISHRA	11
10	BHAGYASHRI D KARMENGE	8
11	ADITI P. BAGADDEO	A
12	RIYA G. ANWANE	15
13	ROSHNI R. KAMBLE	A
14	AFREEN A. BAIG	18
15	MRUNALI V. PATIL	9
16	RINKY S. GUPTA	A
17	SAKSHI H. BORKAR	6
18	SAURABH H. SHENDE	18
19	VAISHANAVI P. UMBARKAR	A
20	KUNAL A. SHEREKAR	A
21	JANVI N. RANDIVE	17
22	UTKARSHA V. HARDE	11
23	ANUJ A. DEO	A
24	ANSHUL D. JAIN	6
25	YATILESH D. MOHALE	A
26	POOJA G. HANDE	7
27	MRUDUL M. KODARLIKAR	9
28	SHUBHAM S. JAWKAR	A
29	SHIWANI S. THAKRE	14
30	PRIYA D. WALDE	16
31	POOJA S. MISAL	A
32	VRUSHALI V. KHANGAR	9



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Bachelor of Science (B.Sc.) Semester—V Examination 2018

STATISTICS

Unit Test –II

Semester V Paper—II

Time : 45 min]

Maximum Marks : 20.

Date: 12/10/2018

NOTE: All questions carry equal marks

1. Define proportional allocation and obtain the formula for variance of the sample mean under this allocation. Compare stratified sampling under proportional allocation with SRSWOR. Comment on the efficiency.
2. Derive an expression for the estimated gain in precision due to stratification.
3. Obtain an expression for efficiency of cluster sampling with that of SRSWOR in terms of intraclass correlation coefficient.
4. For a population with linear trend $Y_i = \mu + \theta \cdot i$ for $i = 1, 2, \dots, N$; find, (i) an expression for the population mean.



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