



Prahladrai Dalmia Lions College of Commerce & Economics
(Government Aided & Affiliated to University of Mumbai & AICTE, New Delhi)
NAAC Re-accredited with 'A' Grade (III Cycle) ISO 21001:2018 Certified
University of Mumbai Recognised Research Centre in Accountancy, Commerce & Business Economics
A Government Approved Hindi Linguistic Minority Institute
54 Years of Streling Performance in Education

NOTICE

Date: 17/08/2026

This is to inform all SYBSc CS students that the internal assessment for the course Statistical (20 marks) will be on the following criteria:

1. **Mandatory class test for 15 marks (already conducted in the month of August, 2026).**
2. **1 home assignment for 5 marks to be submitted during lecture timings only on:**
 - a) **31st August, 2026 for division A at 7:00 AM**
3. **Instructions for Assignments:**
 - a) Students have to be present in person for the submission of their assignment
 - b) Submission of assignment to be done on A4 size ruled paper ONLY. **The entire assessment must be handwritten by the student himself in legible handwriting** and stapled together in a booklet format.
 - c) **The Front page (top right hand side) should contain details:**
 - Name of the student
 - Roll no.
 - Class and Division
 - Semester
 - Course (Subject)
 - Date
 - Name of the assignment.
 - d) A google link will be provided to the students to upload their entire project in due course.

4. If the student fails to present himself on the given date and time for submission of project and assignment he/ she will be marked ABSENT for the said submission and no further chance will be given.

SYBSc CS Statistic-I

NOTE:

1. Don't change the question number and sequence allotted to respective student roll number.

Home Assignment Sums

ROLL NUMBER	ATTENDANCE PERCENTAGE	SUM NUMBER TO BE SOLVED	Total Number of sums
201	62.5	2,4,6,8,9,10,12,14,16	9
202	43.75	1,2,3,5,7,11,13,14,16,17,18,19,20	13
203	50	1,3,5,7,9,11,12,13,15,17,19	11
204	62.5	2,4,6,8,9,10,12,14,16	9
205	25	2,4,5,7,9,10,11,12,13,14,15,16,17,18,19	15
206	87.5	5,7,10,15,20	5
207	62.5	2,4,6,8,9,10,12,14,16	9
208	68.75	1,3,13,14,16,18,19	7
209	87.5	5,7,10,15,20	5
210	37.5	1,2,3,5,7,11,13,14,16,17,18,19,20	13
211	56.25	2,4,6,8,9,10,12,14,16	9
212	68.75	1,3,13,14,16,18,19	7
213	68.75	1,3,13,14,16,18,19	7
214	75	5,7,10,15,20	5
215	87.5	5,7,10,15,20	5
216	0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20
217	87.5	5,7,10,15,20	5
218	25	2,4,5,7,9,10,11,12,13,14,15,16,17,18,19	15
219	62.5	2,4,6,8,9,10,12,14,16	9
220	62.5	2,4,6,8,9,10,12,14,16	9
221	87.5	5,7,10,15,20	5
222	75	5,7,10,15,20	5
223	37.5	1,2,3,5,7,11,13,14,16,17,18,19,20	13
224	100	5,7,10,15,20	5
225	25	2,4,5,7,9,10,11,12,13,14,15,16,17,18,19	15
226	37.5	1,2,3,5,7,11,13,14,16,17,18,19,20	13
227	0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20

228	31.25	2,4,5,7,9,10,11,12,13,14,15,16,17,18,19	15
229	75	5,7,10,15,20	5
230	100	5,7,10,15,20	5
231	37.5	1,2,3,5,7,11,13,14,16,17,18,19,20	13
232	0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20
233	50	1,3,5,7,9,11,12,13,15,17,19	11
234	56.25	2,4,6,8,9,10,12,14,16	9
235	87.5	5,7,10,15,20	5
236	56.25	2,4,6,8,9,10,12,14,16	9
237	0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20
238	37.5	1,2,3,5,7,11,13,14,16,17,18,19,20	13
239	62.5	2,4,6,8,9,10,12,14,16	9
240	62.5	2,4,6,8,9,10,12,14,16	9
241	75	5,7,10,15,20	5
242	87.5	5,7,10,15,20	5
243	62.5	2,4,6,8,9,10,12,14,16	9
244	0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20
245	87.5	5,7,10,15,20	5
246	25	2,4,5,7,9,10,11,12,13,14,15,16,17,18,19	15
247	50	1,3,5,7,9,11,12,13,15,17,19	11
248	0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20
249	75	5,7,10,15,20	5
250	87.5	5,7,10,15,20	5
251	62.5	2,4,6,8,9,10,12,14,16	9
252	71.43	1,3,13,14,16,18,19	7
253	12.5	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	20
254	100	5,7,10,15,20	5

1. A box contain 15 tickets numbered 1 to 15. A ticket is drawn random from the box. Find the probability that the number on the ticket drawn is (i) divisible by 3. (ii) not divisible by 5. (iii) divisible by 3 and 4. (iv) divisible by 3 or 4.
2. If $P(A) = \frac{1}{3}$, $P(B) = \frac{1}{4}$, $P(C) = \frac{1}{5}$, $P(A \cap B) = \frac{1}{12}$, $P(A \cap C) = \frac{1}{15}$, $P(B \cap C) = \frac{1}{20}$, $P(A \cap B \cap C) = \frac{1}{60}$, find $P(A \cup B \cup C)$.
3. An unbiased coin is tossed three times. If A denotes the event all tails, B denotes the event all heads, C denotes the event exactly one head and D denotes the event majority of heads, find the probabilities of these events.

4. Two fair dice are rolled, find the probability that the number on the uppermost face of dice is (i) greater than (ii) less than (iii) equal to, the number on the second dice.
5. If $P(\bar{A}) = \frac{1}{3}$, $P(B) = \frac{1}{2}$, $P(A \cup B) = \frac{5}{6}$, find $P(\bar{B})$, $P(A \cap B)$.
6. Two fair dice are tossed, find the probability that the sum of the numbers on the uppermost faces of the dice is (i) an even number, (ii) a prime number, (iii) is multiple of 4, (iv) is divisible by 5.
7. A card is drawn from a well shuffled pack of cards. Find the probability that the card drawn is (i) a spade, (ii) Ace of spade, (iii) a spade or heart, (iv) a picture card.
8. If $P(A) = \frac{1}{4}$, $P(\bar{B}) = \frac{4}{5}$, A, B are independent find $P(B)$, $P(A \cup B)$ and $P(A \cap B)$.
9. If the letter of the word "SOMETHING" be arranged at random, what is the probability that arrangement (i) begin with "T". (ii) begin with "T" and end with "N".
10. A committee of 3 persons is to be selected from 10 persons of which there are 3 lawyers, 4 teachers and 3 doctors. Find the probability that (i) there is 1 lawyer and 2 teacher (ii) 1 teacher and 2 doctor (iii) 2 lawyer and 1 doctor (iv) all lawyers (v) all teachers.
11. There are 4 doctors, 4 engineers, 3 statisticians and 1 economist. A committee of 4 from among them is to be formed. Find the probability that the committee consist of (i) one of each kind, (ii) atleast one doctor, (iii) economist as a member and 3 others
12. A box contains 6 white balls and 3 black balls. If 5 balls are selected from the box, what is the probability that 2 of them are white?

13. Two fair dice are rolled. X denotes the sum of the numbers appearing on the uppermost faces of the dice. From the probability distribution of X , find (i) $P(X \text{ is multiple of } 3)$, (ii) $P(X < 5)$, (iii) $P(5 < X < 10)$ & (iv) $P(X \geq 4)$.
14. Find $E(X)$ and $V(X)$ for the given data.

X	-2	-1	0	1	2	3
P(X)	0.1	0.2	0.2	0.3	0.15	0.05

X	1	2	3	4	5	6
P(X)	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

15. If X is a random variable with p.m.f.
 $P(X=x) = kx; \quad x=0,1,2,3,4$
 $=0$; otherwise
 Find the value of k and expected value of x .
16. If X is a random variable with p.m.f.
 $P(X=x) = \frac{5}{16}; \quad x = 0,1$
 $= \frac{kx}{48}; \quad x = 2$
 $= \frac{1}{4}; \quad x = 3$
 $= 0$; otherwise
 Find the value of k and expected value.
17. For the following probability distribution, find
- $P(X > 2)$
 - $P(X \leq 1)$
 - $E(X)$
 - $V(X)$

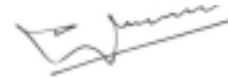
18. If $P(\bar{A}) = \frac{2}{3}$, $P(B) = \frac{1}{4}$, $P(A \cup B) = \frac{5}{12}$, find $P(A \cap B)$.
19. If A, B and C are independent events, such that $P(A)=0.2$, $P(B)=0.3$, $P(C)=0.1$, find the probability of occurrence of all the three of them.
20. : If $P(A) = \frac{1}{3}$, $P(B) = \frac{1}{4}$, $P(C) = \frac{1}{5}$, $P(A \cap B) = \frac{1}{12}$, $P(A \cap C) = \frac{1}{15}$, $P(B \cap C) = \frac{1}{20}$, $P(A \cap B \cap C) = \frac{1}{60}$, find $P(A \cup B \cup C)$.



Dr. Sneha Hathi
Coordinator- Bsc CS
DI/N-STD/GEN/00



Ms. Subhashini Naikar
Vice Principal (SFC)



Prof. (Dr.) D.N Ganjewar
Principal