

D 53684

(Pages : 2)

Name.....

Reg. No.....

**FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2023**

Microbiology

MBG 1C 02—BIOSTATISTICS—I

(2019—2023 Admissions)

Time : Two Hours

Maximum : 60 Marks

Use of Calculator and Statistical Table are permitted.

Part A (Short Answer Type Questions)

Maximum marks that can be scored from this Part is 20.

Each question carries 2 marks.

1. Briefly explain interval scale.
2. Define classical definition of probability.
3. What is arithmetic mean ?
4. Describe quartile deviation.
5. Write a short note on cumulative frequency distribution.
6. Write a short note on parameter and statistics.
7. Write down the sample space of a random experiment of tossing two dice.
8. Describe the term range and inter quartile range.
9. Define multiplication theorem of any *two* events.
10. Write a short note on Bernoulli distribution.
11. Write a short note on Normal distribution.
12. Describe measures of dispersion.

Turn over

Part B (Short Essay/Paragraph Type Questions)

Maximum marks that can be scored from this Part is 30.

Each question carries 5 marks

13. Define Histogram. Briefly explain the steps of constructing a histogram.

14. Draw a less than ogive for the following data :

Class interval	:	60-70	70-80	80-90	90-100	100-110	110-120	120-130
Frequency	:	2	5	12	31	39	10	4

15. State and prove addition theorem in probability for two events A and B.

16. For the following data find the Standard Deviation :

x	:	12.5	13	13.5	14	14.5	15	15.5	16
f	:	4	19	30	63	66	29	18	1

17. Find the median for the following data :

Wages	:	0-1000	1000-2000	2000-3000	3000-4000	4000-5000	5000-6000	6000-7000
Frequency	:	4	16	60	100	40	6	4

18. Fit a Poisson distribution for the following data :

No. of Mistakes	:	0	1	2	3	4
No. of Pages	:	109	65	22	3	1

19. Write a short note on Chi-square distribution. What are the applications of Chi-square distribution ?

Part C (Essay Type Questions)

Answer any one question

The question carries 10 marks

Maximum marks that can be scored from this part is 10.

20. From the following data calculate (i) mean ; (ii) median ; (iii) Quartile Deviation ; (iv) Standard deviation and (v) co-efficient of variation :

X	:	170-180	180-190	190-200	200-210	210-220	220-230	230-240	240-250
F	:	52	68	85	92	100	95	70	28

21. A card is drawn from a pack of 52 cards. Find the probability of getting a king or a heart or a red card.

(1 × 10 = 10 marks)