

D 32380

(Pages : 3)

Name.....

Reg. No.....

**FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2022**

Microbiology

MBG 1C 02—BIostatistics—I

(2019—2022 Admissions)

Time : Two Hours

Maximum : 60 Marks

*Use of calculator and Statistical table are permitted.***Part A (Short Answer Type Questions)***Each question carries 2 marks.**Maximum marks that can be scored from this part is 20.*

1. Define ordinal scale.
2. Define frequency polygon.
3. What is harmonic mean ?
4. Describe mean deviation.
5. Define multiplication theorem on probability.
6. Define parameter and statistics.
7. Define sample space. Write down the sample space of a random experiment of tossing three fair coins.
8. Define Poisson distribution.
9. Define inter quartile range.
10. Define cumulative frequency distributions.
11. Define t distribution.
12. Write the pdf of F-distribution.

Turn over

Part B (Short Essay/Paragraph Type Questions)

Each question carries 5 marks.

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

13. Define ogives. Briefly explain the steps of constructing an ogive.
14. Define measures of central tendency and what the various measures of central tendencies are. Briefly explain mean, median and mode.
15. If two dice are thrown, what is the probability that the sum is :
a) Greater than 8 b) Neither 7 nor 11.
16. Obtain the median and standard deviation of the following data :

x	:	5	10	15	20	25	30	35	40	45
f	:	6	12	18	22	38	38	24	19	8

17. For the following data find the median :

Class	:	20-40	40-60	60-80	80-100	100-120	120-140	140-160	160-180	180-200
Frequency	:	8	12	20	30	40	35	18	7	5

18. Draw a frequency polygon for the following data :

Marks	:	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	:	12	18	27	20	17	6

19. Write a short on Normal distribution. What are the properties of Normal 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. Seven coins are tossed and number of heads notes. The experiment is repeated 128 times and the following distribution is obtained. Fit a binomial distribution assuming the coin is unbiased and calculate the expected frequencies :

No. of Heads	:	0	1	2	3	4	5	6	7
Frequency	:	7	6	19	35	30	23	7	1

21. Scores of two golfers for 24 rounds were as follows :

A	:	74	75	78	72	77	79	78	81	76	72	72	77
B	:	86	84	80	88	89	85	86	82	82	79	86	80
A	:	74	70	78	79	80	81	74	80	75	71	79	73
B	:	82	76	86	89	87	83	80	88	86	81	81	87

Find which golfer may be considered to be more consistent player using co-efficient of variation.

(1 × 10 = 10 marks)