

RAN-2303080603040004
M.Sc. Microbiology (Sem. - III) Examination October - 2025
Elective Paper - 2 : MB 3004 B
Biostatistics, Research Methodology And Communication Skills
Time: 3 Hours]
[Total Marks: 70
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Figures to the right indicate full marks of the question.
- (3) Draw neat and labeled diagrams whenever necessary
- (4) All questions are compulsory

Seat No.:

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Student's Signature

- Q. 1 Answer the following (Any two) 18**
- A) Write discrimination between parametric and non-parametric statistics.
 - B) Explain regression and correlation with suitable examples.
 - C) Discuss the three types of probability distributions with examples.
- Q. 2 Answer the following (Any two) 18**
- A) Discuss the importance of research ethics in microbiological studies.
 - B) Explain the steps involved in writing of research thesis and article.
 - C) Describe qualitative vs quantitative research methods with examples.
- Q. 3 Answer the following (Any two) 18**
- A) Describe verbal and non-verbal communications with examples.
 - B) Describe the role of mass media in effective communication.
 - C) Write a brief note on ICT and governance.
- Q. 4 Answer the following (Any eight) 16**
- I. Define proportion with an example.
 - II. Find the sum of first ten even numbers.
 - III. Define simple interest and give its formula.
 - IV. Define inductive reasoning with example.
 - V. Solve: 48% of 250.
 - VI. Draw Venn diagram which is related to given names- Teacher, Author and Person
 - VII. If a train of length 300 m runs at 72 km/hr, how much time will it take to cross a man standing on the platform.
 - (A) 15 seconds
 - (B) 20 seconds
 - (C) 30 seconds
 - (D) 40 seconds

- VIII. If the day after the 2nd Tuesday of a month is the 11th, then what will be the date on the day after the 4th Tuesday?
- (A) 25th (C) 24th
(B) 23rd (D) 22nd
- IX. If cost price = 260 and selling price = 300, find profit percentage.
- (A) 16.78% (C) 15.38%
(B) 18.89% (D) 19.89%
- X. Find the average of 22, 24, 26, 28, 30.
- (A) 22 (C) 24
(B) 28 (D) 26
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