

2025

**M.Sc. 1st Semester Examination
FOOD SCIENCE AND NUTRITION**

Paper : FSNC401X0

(Biostatistics and Bioinformatics)



Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *two* questions : $2 \times 2 = 4$

1. What is DDBJ?
- 2. Distinguish between graph and diagram with examples.
3. What is error of inference?
4. Differentiate between primary and secondary sequence database.

Group - B

Answer any *two* questions : $4 \times 2 = 8$

- 5. Compute mean value, when standard deviation(s) is 14 and coefficient of variance (CV) is 23.33 in a single data set.

P.T.O.

(2)

- 6. Sample data sets for bacterial growth (cfu) are 50, 55, 60, 65, 58 and Population means (μ) is 50. Compute 't' value.
- 7. State the components of an internet mentioning their function. What is WWW? 3+1
- 8. Find the median of the following data :
BMI (kg/m²) : 19, 21, 22, 26, 28, 30, 31, 35, 37
What is percentile rank? 3+1

Group - C

Answer any *one* question : 8×1=8

- 9. Explain the following terms — PPOM, EPROM, DRAM.
 - Find out whether or not significance association between diabetes and hypertension, when 35 people are suffering from hypertension out of 90 are diabetes, whereas out of 100 non-diabetic 10 are suffering from hypertension with using the selected critical chi-square value as given below.

Critical $\chi^2_{0.02(3)} = 9.84$, $\chi^2_{0.02(2)} = 7.82$, $\chi^2_{0.02(1)} = 5.41$

- 10. Write down the three basic steps of Bioinformatics. Illustrate your idea about BLAST Vs. FASTA. Write the full form of EMBL, DDBJ, MMDB. 3+2+3

Internal Assessment : 5 marks

