

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
