

2025

**M.Sc. 1st Semester Examination
NUTRITION AND DIETETICS**

Paper : NUDC401X1

[Biostatistic & 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 : 2×2=4

1. In a frequency distribution, suppose mean = 58.0, median = 58.5 and mode = 59.5. Interpret on the nature of such frequency distribution.
2. Relationship between Variance and Standard deviation.
3. Write the different components of computer internet applications.
4. What do you mean by Gene bank with example?

P.T.O.

(2)

Group - B

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

5. Compute mean value, when standard deviation(s) is 10 and coefficient of variance (CV) is 22.30 in a single data set.
6. A survey of 100 students recorded their preference for veg and nonveg food preference on gender. Test whether the gender and food preference are independent of 5% significance level.

$$\chi^2_{0.05(1)} = 3.841$$

Gender	Food Preference	Frequency
Male	Vegetarian	20
Male	Nonvegetarian	30
Female	Vegetarian	25
Female	Nonvegetarian	25

7. Write the different types of application software with examples.
8. Write the SOP for drawing bar-diagram.

Group - C

Answer any *one* question : $8 \times 1 = 8$

9. What do you mean by single group experiment? Compute t-value with the following paired observation scores to bind out whether there is any significant effect of fat consumption on body weight.

(3)

Body weight (kg) before and after high fat consumption

Before : 70 60 55 65 50 62 60 50 75 70

After : 75 61 65 70 70 72 75 65 70 78

What will be the Degree freedom of these score?

Critical t-value $0.05(9) = 3.85$ 2+5+1

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

Internal Assessment : 5 marks
