2022

Food Science & Nutrition

[P.G.]

(M.Sc. Second Semester End Examination-2022)

PAPER-MFSN 201

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

USE SEPARATE ANSWER SCRIPT FOR EACH CONTENT

1. Answer any five Questions from the following: **5x2=10**

a. Define population with example.

b. Differentiate between frequency distribution graph and diagram.

c. How much % of scores lied in Mean ± ISD, Mean ± 2SD?

d. How much variables are used for computation of test of significance and correlation of coefficient?

e. Define Skewness with computation formula.

f. Differentiate between system and application software.

g. Define 'omics' with example.

h. What is CORBA?

2. Answer any four Questions from the following **4x5=20**

a. Compute the mean, median and percentile ten (P10) of the following body weights [kg] scores :

Class intervals: 51-53 54-56 57-59 60-62 63-65 66-68 69-71

Frequencies: 5 7 14 28 15 8 3

5

b. Write the computed formulae of equal & unequal 'df' of sample size.

Calculate computed z-value, when sample mean = 50Kg, Population mean= 55kg and SE=2.553 and justify the nutritional status on the basis it. 2+3

c How to compute variance and SD for group data? Why health statistics is more important in your subject? 3+2

d. What do you mean by input and output device of a computer . Give example. Write down the application of MS world and MS-Excel. 2+3

e. Differentiate between internet and intranet. What do you mean by RAM and ROM. $2\frac{1}{2}+2\frac{1}{2}$

f. Differentiate between Primary and Secondary database. Define BLAST. $2\frac{1}{2}+2\frac{1}{2}$

3. Answer any one Question from the following 1x10=10

a. Why ANOVA is more preferable than t-test?

What are the importance's of chi-square test?

How do you compute 't' value from the following pair scores of fasting and pp blood sugar levels of 9 diabetic patients?

FBS: 90, 125, 140, 160, 180, 170, 100, 150, 200.

PPBS: 250, 330, 240, 190, 305, 440, 300, 250, 420. 3+2+5

b. RDA is what type of statistical measurement and why? Write the assumptions of product moment correlation of coefficient.

Compute spearman Correlation of coefficient of the following body weight (Kg) & body length (cm) scores of the 07 babies.

Sl no of Babies	1	2	3	4	5	6	7
Body length (cm) (X)	55	80	95	85	75	95	94
Body weight (kg)(Y)	5.5	9.5	9.5	6.5	4.5	6.5	4.5

2+3+5

OR

c. What do you mean by Primary and secondary structure of protein. Protein structures are more conserved than sequences – explain. What do you mean by codon usage biase pattern? Find out the Pairwise alignment between two sequence using DOT matrix.

Sequence 1: T A G C G G T A T T C

Sequence 2: T A G A G T A T G C 10