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PG CBCS
M.Sc. Semester-III Examination, 2020
FOOD SCIENCE & NUTRITION
PAPER: FSN 302

STATISTICS, COMPUTER APPLICATION AND RESEARCH METHODOLOGY

Full Marks: 40

Time: 2 Hours

Answer any four questions: (250 Words)

10X4=40

1. Why chi-square tests is non-parametric and what are importance's this test?

Find out whether or not significance association between diabetes and hypertension, when 25 are hypertensive out of 50 are diabetes individuals, whereas out of 60 non-diabetic 20 are hypertensive with using the selected critical chi-square value as given below.

Critical $\chi^2_{0.02(3)} = 9.84$, $\chi^2_{0.02(2)} = 7.82$, $\chi^2_{0.02(1)} = 5.41$, 4+6

2. What are the dispersion statistics with example? Write the relationship between Skewness and Kurtosis.

Compute the SD and SE of the frequency distribution of BMI scores and interpret your results after computation of Confidence intervals.

Class Interval: 15-17, 18-20, 21-23, 24-26, 27-29, 30-32.

Frequencies: 3 5 8 9 4 2 2+5+5

3. Write the relationship between one-tail and two-tail t-test. 3+7

The Hb(g%) of 10 male college students and 10 female college students are given below. Find out whether or not the mean Hb% of male is significantly higher than that of female.

Male	11.2	12.4	10.8	13.2	11.6	12.6	10.4	14.2	12.8	13.6
Hb (g%)										
Female	12.8	11.6	12.2	11.8	9.8	12.4	12.4	11.4	13.8	12.0
Hb (g%)										

Critical t Score: $t_{0.02(18)} = 2.552$

$t_{0.05(18)} = 2.101$

(P.T.O.)

(2)

4. Why ANOVA is more preferable than t-test? Classify with examples of ANOVA and Write the computation of sum of squares, variances and 'F' ratio for multiple comparison of 3 set of sample means of a variable. 2+2+6
5. What is operating system? What are different types of operating system discuss with suitable example? 2+8
6. What are different types of system software? What are primary key, foreign key & alternative key? 4+6
7. What is DBMS? What are the application of DBMS in biological Sciences with example? 2+8
8. Explain the basic research ethics that should be maintained to carry out the research proposal. 10
9. What are the personal quality requirements of a good researcher? What do you mean by plagiarism in research? 2+8
10. Write the different features of qualitative and quantitative research. State the cohort study with one example. 5+5
