



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING

SECOND SEMESTER – NOVEMBER 2016

FP 2809 - RESEARCH METHODOLOGY AND BIostatISTICS

Date: 12-11-2016
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part A

Answer ALL THE questions.

10 x 2 = 20 marks

1. What is descriptive research?
2. Define a pilot study.
3. Mention the need for collecting secondary data.
4. What is judgment sampling?
5. Name any four e-journals.
6. Distinguish between bibliography and reference.
7. What is a nominal scale?
8. What are the benefits of using arithmetic mean?
9. List the uses of t-test.
10. Mention the different types of correlation.

Part B

Answer ANY EIGHT questions.

8 x 5 = 40 marks

11. Define research. What are its objectives?
12. Explain any three methods of collecting primary data giving examples wherever possible.
13. Write a note on informal experimental research designs.
14. Design a questionnaire to assess the knowledge and awareness of soya products among college students.
15. Mention the guidelines for preparing bibliography.
16. Explain the stages involved in formulation of a research project.
17. Write short notes on usefulness of e resources available for food science and processing.
18. Bring out the role of computers in presenting research data.
19. Discuss the various scales used for sensory evaluation.
20. What is a project proposal? Bring out the outline of a project proposal.
21. Compute mean, median and mode from the following data:

X	8	10	12	14	19
Frequency	4	7	4	13	9

22. Find the standard deviation of the following data

Wages (Rs.)	140-160	160-180	180-200	200-220	220-240	240-260	260-280	280-300
No. of Persons	12	18	35	42	50	45	20	8

Part C

Answer ANY FOUR questions.

4 x 10 = 40 marks

23. Under what circumstances would you recommend

- a) A Probability Sampling
- b) A non-probability sampling

Explain by means of an example.

24. Give a brief account on editing, coding, classification, and tabulation of data.

25. Outline the layout of a research report and narrate the steps involved in writing such a report.

26. Calculate coefficient of correlation between two variables from the following

X	48	33	49	36	31	28	42
Y	25	20	25	24	29	22	20

27. Set up an analysis of variance table for the following processing methods for three varieties of pulses, each processed by four different food processing methods and state if the variety differs significantly.

(Given $F_{0.05} = 4.26$)

Processing methods	Variety A	Variety B	Variety C
Raw	7	3	3
Fermented	7	2	5
Germinated	3	6	4
Parched	8	7	8

28. Following an outbreak of food poisoning caused by *Shigella*, a certain drug was administered to 812 persons out of a total of 3248. The number of affected cases is shown below

	Food Poisoning	No Poisoning	Total
Cephalosporins	20	792	812
No cephalosporins	220	2216	2436
Total	240	3008	3248

Discuss the usefulness of Cephalosporins in alleviating food poisoning. (Table value - $F_{0.05} = 3.84$)
