



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examinations 2021

(Under CBCS Pattern)

Semester - VI

Subject: NUTRITION

Paper : DSE 4-T & P

Full Marks : 60 (Theory-40 + Practical-20)

Time : 3 Hours

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

The figures in the margin indicate full marks.

Methods of Epidemiological Data Analysis

[Theory]

Answer *any two* of the following:

2×15=30

1. What do you mean by vital statistics? Write down the differences between rates, ratio and proportion with example. Write down the differences between prospective and retrospective studies.

2+7+6

2. What do you mean by central tendency? calculate mean and median from the following data. 5+(5+5)

Name of the person	Weight (kg)
A	67
B	54.3
C	19.5
D	34.9
E	76
F	56.1
G	45

3. Write down the differences between student t-test and ANOVA. Smoking causes lung cancer-how do you explain this statement by null hypothesis? 6+9

4. Write down the significance of skewness and kurtosis in epidemiological data analysis. Write down the equation of independent sample t test. Explain paired t test with example. 5+5+5

Answer **any one** of the following:

$1 \times 10 = 10$

5. What do you mean by SD and SE? Calculate SD from the following data

$5+5=10$

Name of the person	Weight (kg)
A	67
B	54.3
C	19.5
D	34.9
E	76
F	56.1
G	45

6. Draw a line graph from the following data.

10

Name of the student	Percentage of marks
A	34
B	67
C	98.2
D	87

[Practical]

Answer *any one* of the following:

1×20=20

7. Prepare a questionnaire for survey for prevalence of diabetes/hypertension/allergy/respiratory disorders. 20
8. Write down the method of analysis of data from NCPR. 20
9. Draw a histogram from the following data 20

Name of the student	Percentage of marks
A	34
B	67
C	98.2
D	87

Food Packaging

[Theory]

Answer *any two* of the following:

2×15=30

1. What is barcode? How does barcode read? Discuss about food labelling laws. Why does food packaging significant? 2+7+6
2. Discuss about different paper and paper-based food packaging materials. Write the difference between injection molding and blow molding. What are the utilities of using biodegradable plastics in food packaging? 6+4+5
3. Write components, types and uses of TFC. Discuss about tinning process. What is lacquers Glass? 6+5+4
4. What should be the ideal package design for fresh animal foods? How does packaging for dry and moisture sensitive foods execute? Give examples of thermally processed foods and beverages. What are the materials used for thermally processed food? 3+5+3+4

Answer *any one* of the following:

1×10=10

5. Discuss different Regulatory Aspects of Food Packaging. How do you test bursting strength and strength, tensile strength for food packaging? 5+5
6. How do you evaluate of transport worthiness of filled packages? Discuss about different Aseptic packaging systems with example. What are the uses of fill and sealing machine? 3+5+2

[Practical]

Answer *any one* of the following:

1×20=20

7. How do you examine any one mechanical property of food packaging material? How will you determine thermal shock resistance of glass? 20
 8. Write the method of gas packaging of food. Describe the composition of any two edible packaging materials. 20
 9. How does water vapour transmission rate of packaging material determine? Write the operation of FFS machine. 20
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Bakery Technology and Mushroom Culture

[Theory]

Answer *any two* of the following:

2×15=30

1. Write the economic importance of Bakery industry in India. Write the ingredient and processes of cake making. What are the types of equipment used in cake industry?
4+6+5
2. Briefly describe about the modified bakery products. What do you mean by breakfast cereals? Write about the production of macaroni products. Write the ingredient and process of bread making.
5+2+4+4
3. Write the morphology and life cycle of mushroom. Write about some edible mushrooms available in India. Write the process of mushroom cultivation.
6+4+5
4. State about the fault arises in baked food production and mentions the corrective measures. How can we assess the quality of bakery product? Write about the ingredients and equipments used for cookies production.
4+6

Answer *any one* of the following:

1×10=10

5. Elaborate the storage process of mushroom. How can we recognize the poisonous mushroom mention with example?
5+5
6. Write about different types of icing in cake making. Write the process of pizza base making.
5+5

[Practical]

Answer *any one* of the following:

1×20=20

7. Write the method of sponge cake preparation with icing and methods of assessment of its quality.
20
 8. Write the preparation of different foods from mushroom.
20
 9. Write the methods of cookies and methods of assessment of its quality.
20
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Sea Food and Dairy Technology

[Theory]

Answer *any two* of the following:

2×15=30

1. Write down the principles of canning. What do you mean by fish protein concentrates and fish protein extracts. What do you mean by amphoteric nature of protein? Write down the procedure of cheese preparation. 3+4+3+5
2. What do you mean by saponification value and iodine value? What are conditions those make fish and meat spoiled? 3+3+9
3. Write down the preservation principle of smoking for fish. What is pressure canning? What is HTST? Write down the importance of bactofugation for milk processing. 5+3+2+5
4. Write down the application of osmometry in quality analysis of milk. Write down the effect of k-carrageenan & tetrasodium pyrophosphate on the yield of direct acidified cottage cheese. What do you mean by lactose intolerance? 5+5+5

Answer *any one* of the following:

1×10=10

5. Write down the name of enzymes present in milk. How do you assess the effectiveness of pasteurization? 3+7
6. Write down the chilling and freezing process of fish. 10

[Practical]

Answer *any one* of the following:

1×20=20

7. Write down the principles and procedure of estimation of milk protein by suitable method. 20
 8. Write down the preparation procedure of flavor milk. Write down the procedure of pasteurization. 10+10
 9. Write down the principle and procedure of platform tests of milk. 20
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