

Question Paper

Exam Date & Time: 28-Dec-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

Food Analysis [PCH-MPA104T - S3]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Explain the principle and procedure involved in the determination of iodine value and saponification value of oils/fats and add a note on their significance. (6)
A)
B) Explain the methods used for qualitative and quantitative analysis of benzoic acid in food or beverages. (4)
- 2) Discuss the principle and procedure involved in Babcock and Gerber method for milk fat determination. (5)
A)
B) Write the principle and procedure involved in the bioassay of Vitamin D. (5)
- 3) Explain the principle and procedure involved in the determination of hexanal and TBARS for assessing lipid oxidation of given fat or oil (5)
A)
B) Explain one qualitative and quantitative determination of any one antioxidant used in food products. (5)
- 4) Explain the effects of food processing on dietary carbohydrates and discuss the carbohydrate estimation by enzymatic methods. (10)
- 5) Discuss the composition, sample preparation, and determination of total solids and fat in milk. (10)

SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) Write a note on BIS and Agmark (5)
- 7) Write the principle and procedure involved in the microbiological assay of Vitamin B12 (5)
- 8) What is the need for analysis of protein in food and food products? explain the principle involved in the determination of protein by the Kjeldahl Method. (5)
- 9) List the fermented products and explain the components that need to be analyzed in the same. (5)
- 10) What are pesticides? Classify them with examples. Explain its detection and quantification by biochemical Techniques. (5)

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