

OCTOBER 1996

PK 215

M.Pharm DEGREE EXAMINATION

First Year

New Regulations

Branch V - Pharmaceutical Analysis

FOOD ANALYSIS

Time: Three hours

Max.marks:100

Answer any FOUR questions

All questions carry equal marks.

1. (a) Discuss the general methods of analysis of oils and fats present in foods.
(b) Give an account of the chemical constituents present in the hen's egg.
2. (a) Describe the methods for detection and determination of anti-oxidants and emulsifiers.
(b) Discuss the analysis of milk and milk products.
3. (a) Discuss the physical constants involved in the characterization of proteins.
(b) Discuss the physical and chemical factors involved in the deterioration of food quality and spoilage.
4. Write briefly on the following:
 - (a) Vegetable oil products control order
 - (b) Analysis of alcoholic beverages
 - (c) Micro biological factors in the spoilage of foods
 - (d) Analysis of Tea and coffee
5. (a) Discuss the chemical methods of water analysis.
(b) Name the effluents possibly present in water with special reference to Public Health and Food Industries.
6. (a) Name the common adulterants present in honey and ghee or vanaspathi and give method of detection for each.
(b) Give a general account of the standards required for fruits and fruit products.

APRIL 1997

M.Pharm. DEGREE EXAMINATION

(New Regulations)

First Year

Branch V - Pharmaceutical Analysis

Paper IV - FOOD ANALYSIS

Time: Three hours

Max. marks: 100

Answer any FOUR questions

All questions carry equal marks

1. Write an essay on the Food Adulteration Act, explaining its scope, implementation and drawbacks with your critical remarks.
2. (a) Explain how calorific value of food materials is determined. Give examples.
(b) Discuss the importance of moisture control in food materials and describe the methods for estimation of moisture content.
3. (a) Describe the methods for the estimation of proteins in food materials.
(b) Explain the importance of microscopy in food analysis.
4. What are the standards of potable water? Describe the recent methods in the treatment of waste water from industries.
5. Write notes on:
 - (a) Determination of preservatives
 - (b) Aflatoxins
 - (c) Colouring materials used in food industry.

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OCTOBER 1997

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First Year

Branch V - Pharmaceutical Analysis

Paper IV - FOOD ANALYSIS

Time: Three hours

Max.marks:100

Answer any FOUR questions

All questions carry equal marks

1. (a) What is the chemical composition of butter? Explain the significance of Polenske, Reichert Meissel and Kirchenes values. How are they determined?
(b) Discuss the structural features of starch. How is it estimated in food materials?
2. (a) Discuss the use of various preservatives used in food industry. How is sulphur dioxide estimated in fruit squashes?
(b) How are pesticides estimated in food products?
3. Discuss the standards laid down for potable water. Describe the methods employed for the treatment of waste/water from industries.
4. Describe the possible contaminants of food products. Explain the safe limits for heavy metals. How is Arsenic estimated?
5. Write notes on:
 - (a) Botulism
 - (b) Standards for the analysis of honey
 - (c) Fibre content in food materials.

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APRIL 1998

M.Pharm. DEGREE EXAMINATION.

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First Year

Branch V — Pharmaceutical Analysis

Paper IV — FOOD ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. Discuss the methods for the determination of physical constants, moisture, ash, solids and crude fibres in various foods with examples.
2. (a) How is the total nitrogen content quantitatively determined?
(b) Describe the analysis for purity and to determine the adulteration in Honey.
(a) Describe the chemical analysis of effluents of a sic drug industry.
(b) What are the standards fixed for water supply for human consumption? How are they analysed?
4. Write a detailed essay on the physical, chemical and microbiological factors involved in the deterioration of foods.
5. (a) Discuss the general methods of analysis of carbohydrates in foods.
(b) How is purity and adulteration analysed in ice creams?

6. Write a note on the following :-

- (a) Fruit products order.
 - (b) Products control order.
 - (c) Analysis of confectionery and Bakery products.
 - (d) Analysis of milk.
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[KA 283] OCTOBER 1999

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper IV — FOOD ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. (a) Explain in detail the principle, procedure, various catalyst used and modifications of Kjeldahl method for nitrogen estimation.

(b) Define crude fibre and elaborate a method for the determination of the same.

(c) What do you mean by dietary fibre? How is it estimated? (10 + 8 + 7)

2. (a) What is Pasteurisation of milk? Name the tests employed to assess the efficiency of Pasteurisation. Explain in detail any two of them.

(b) Explain the methods used for the determination of fats in food products. (10 + 15)

3. (a) Explain the following :

(i) Cream

(ii) Yogurt

(iii) Butter.

(b) Write an essay on the tests carried out to assess the quality of Butter. (6 + 19)

4. (a) What is rancidity of oils of fats? Name the methods used to test rancidity and explain in detail any two methods.

(b) Explain the salient features of functioning of Indian Standard Institute. (12 + 13)

5. (a) What do you mean by COD and BOD? Explain their significance and their determination in effluents.

(b) Explain the purpose and technique of dehydration of food products. (15 + 10)

[KB 283] APRIL 2000

M. Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper IV — FOOD ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. (a) Explain the term rancidity.
(b) How do you detect the development of rancidity in a sample of Ghee?
2. (a) Describe the principle involved in the determination of glucose and fructose in a sample of honey.
(b) How do you detect the presence of corn syrup Honey? Give the structure of D-Fructose.
3. Give the method of Analysis Caffene in Tea and curcumin in turmeric.

4. Give an account of permitted colours preservatives and Anti-oxidants in Food products.

5. (a) Describe the general Analysis of Carbohydrates in Foods.

(b) How is purity and adultration analyse in Milk?

6. Write notes on the following :

- (a) Baudouin test
- (b) Reichert meiss and polenske value
- (c) Milk fat content in Dahi
- (d) Crude fibre content in chilli powder
- (e) Nature and Quality control of Honey.

OCTOBER 2000

[KC 283]

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper IV — FOOD ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. (a) Explain any three methods for the determination of water content.

(b) What do you mean by "water activity"? Explain its significance and its determination.

2. Write an essay on the various types of "adulteration and contamination" of milk. How are they detected?

3. Explain the various general tests carried out to assess the quality of oils.

4. (a) What do you mean by "Total Dissolved Solid"? How the total dissolved solid is determined?

(b) How is purity and adulteration analysed in ice creams.

5. (a) Write an essay on the determination of various types of ash values and their importance.

(b) What are the preservatives used in food products. Explain the method of estimation of any one of them. (10 + 15)

6. Write notes on the following, with reference to the nature and quality control.

(a) Cured meat

(b) Antioxidant

(c) Honey

(d) Confectionary and Bakery products.

(e) Fruit products order.