

APRIL 2001

[KD 283]

M.Pharmacy 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. Write the methods for analysing various carbohydrates in food products. (25)

2. Write the various methods of estimation of Nitrogen in food products. (25)

3. (a) How will you estimate trace elements in food products?

(b) Discuss in brief, the various methods of determining moisture content in foods. (25)

4. How will you extract and quantify

(a) Caffeine in Tea

(b) Chicory in coffee. (25)

5. (a) Determination of alcohol in beverages.

(b) What are the official standards for drinking water and tests carried out for the same? (25)

6. (a) What are canned foods? How are they processed? What are the QC standards for such products?

(b) What are ash values and their significance in the Quality Control of food products? (25)

APRIL 2001

[KD 302]

M.Pharmacy DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer ALL the questions.

All questions carry equal marks.

1. (a) Explain various methods used for the determination of moisture content in food preparations.

(12)

(b) Explain the determination of alcohol in beverages.

(5)

(c) Write notes on the principle, technique and modifications of Kjeldahl method and its use.

(8)

2. (a) What is Polensky value? How is it determined?

(b) How will you detect organophosphorous pesticide residue in food products?

(c) Explain the methods for the detection and determination of Arsenic in food products.

(d) What do you mean by chemical oxygen demand? How is it determined.

(5 + 5 + 8 + 7)

3. (a) Explain the Bureau of Indian standards specifications and testing methods for shampoos. (18)

(b) How will you evaluate antidandruff activity of antidandruff shampoo preparation. (7)

4. (a) Write briefly on the need for toxicity tests for cosmetics. Mention the toxicity tests performed for different cosmetics. (5)

(b) Give an account of the various methods for determining the fat content of milk. (12)

(c) What is aflatoxin? How is it detected in food products? (8)

NOVEMBER 2001

[KE 302]

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer ALL the questions.

All questions carry equal marks.

1. (a) Explain the difference between crude fibre and dietary fibres. How are they determined? (15)

(b) What are the modifications, suggested to the original kjeldahl method to suit various types of analytes. (3)

(c) What are the common adulterants in Tea? How are they detected? (7)

2. (a) How do you determine Reichert value, Polensky value and Kirshner value? Explain the interpretation of these values in assessing the quality of butter. (17)

(b) What is invert sugar? How will you detect invert sugar in Honey? Explain with principle and reactions. (4)

(c) What is cyanogen value? Explain the determination and significance of cyanogen value. (4)

3. (a) Classify the followings and explain the detection and determination of any one of them in each. (14)

(i) Preservatives.

(ii) Colouring agents.

(b) Explain the Bacteriological evaluation of potable water. (6)

(c) How will you detect pesticide residue in fruits. (5)

4. (a) Explain the specifications recommended by Bureau of Indian standards. For the following cosmetics and how are they determined.

(i) Face powder

(ii) Shampoo. (20)

(b) Explain the composition of the following cosmetics

(i) Hair dyes

(ii) After shave lotion. (5)

[KH 302] SEPTEMBER 2002

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer ALL the questions.

All questions carry equal marks.

(a) Describe the salient features of Kjeldahl's method of estimation of protein content of paustik atta. (15)

(b) Write a note on rancidity of a fixed oil. (10)

B (a) How would you estimate alcohol content in beer and Wine? (10)

(b) Give test for evaluation of quality of fruits and vegetables by determining texture. (8)

(c) What are common adulterants in Tea? How are they detected? (7)

3. (a) Give methods for detection and determination of adulterants in fats and oils. (10)

(b) What are common adulterants of ground nut oil? (8)

(c) What is cyanogen value? Explain the determination and significance of cyanogen value. (7)

4. Explain the specifications recommendations by Bureau of Indian Standards, for the following cosmetics and how they are determined. (5 × 5)

(a) Hair dyes

(b) After Shave lotions

(c) Tooth paste

(d) Shampoo

(e) Face powder.

[KI 302] APRIL 2003 Sub. Code : 1022

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer ALL questions

All questions carry equal marks.

1. Name the different preservatives used in food products. Describe any two methods for their determination. (25)

2. Write about the various adulterants and contaminants of ice creams. How are these adulterants and contaminants detected? (25)

3. (a) What are the various common adulterants in fruit products? How are they detected? (15)

(b) Describe one method for the determination of preservatives in canned fruits. (10)

4. Name and classify the different anti-oxidants used in food products. Describe the method for detection and quantitative determination of any two emulsifiers. (25)

OCTOBER 2003

[KJ 302]

Sub. Code : 1022

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer ALL the questions.

All questions carry equal marks.

1. (a) Explain the methods for estimation of fat content, milk solids and stabilisers in ice-cream. (20)

(b) Write on quality control tests for honey. (5)

2. (a) Give methods for detection and determination of adulterants fats and oils. (10)

(b) Describe determination of dye content in carbonated drinks. (8)

(c) Explain methods for estimation of citric acid in citrus fruits. (7)

3. (a) Give the method of analysis of the following : (10)

(i) Caffeine in tea

(ii) Curcumin in turmeric.

(b) Discuss the common adulterants for the following products with their detectives in commercial samples : (10)

(i) soft drinks

(ii) coffee.

(c) Write a note on quality control of starch products. (5)

4. Explain the composition and preparation of the following cosmetics : (5 × 5)

(a) Shampoo.

(b) Face powder.

(c) Skin creams.

(d) Cologne.

(e) Nail polish.

[KK 302] APRIL 2004 Sub. Code : 1022

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours Maximum : 100 marks

Sec. A & B : Two hours and Sec. A & B : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL the questions.

SECTION A

Long Essay : (2 × 15 = 30)

1. Explain any two methods each for the estimation of the following :

(a) Proteins

(b) Starch

2. Explain the acceptance tests and type test for toothpaste as per BIS specification.

APRIL 2004

SECTION B

Short notes :

(10 × 5 = 50)

3. Define crude fibre and briefly explain its determination.
4. Define the following :
 - (a) Reichert value
 - (b) Polenske value
 - (c) Kirschner value.
5. What is Iodine value? Mention its significance and briefly explain any one method for the estimation of Iodine value?
6. Classify food preservatives with example and give brief account on estimation of any one of them.
7. How will you estimate lead in food product?
8. Write notes on the determination of "BOD" in effluent.
9. Explain the adhesion test and blush test for nail polish.
10. Write notes on the active detergent content estimation in synthetic detergent based shampoo as per BIS specification.

11. Explain the apparatus used and the technique for sampling of skin powder for analysis, during manufacture.

12. Name the hair cream types as per BIS classification. How will you determine the thermal stability of hair cream?

AUGUST 2004
[KL 302] Sub. Code : 1022

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours Maximum : 100 marks

Sec. A & B : Two hours and forty minutes Sec. A & B : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

SECTION A — (2 × 15 = 30 marks)

Answer ALL questions.

- 1. Write note on the various physical, chemical and microbiological analysis of water supplies. Discuss the BOD and COD analysis of effluents.**
- 2. Write in detail the physical, chemical and microbiological factors involved in the deterioration of food quality and spoilage.**

AUGUST 2004

SECTION B — (10 × 5 = 50 marks)

3. What are crude fibre and Dietary fibre? How the crude fibre is estimated?
4. List out the different tests carried out on the milk samples. Write notes on the determination of fat in milk.
5. Give examples of Inorganic and organic preservatives. Write on the determination of nitrates and nitrites.
6. Discuss the determination of volatile acids in butter fat. Write on the interpretation and use of R, P and K values.
7. List out the tests carried out on the skin powder for infants. Write about the test for Boric acid, and fineness.
8. Define Tooth paste. What are the tests carried out on toothpaste? Write on the determination of Foaming power.
9. Discuss the determination of active detergent content of a detergent based shampoo.
10. Give examples of Food colours. Discuss the General methods of their analysis.

11. What are edible oils? Give examples. What are the tests performed on them?

12. What are the duties of a Public Analyst and Food Inspector?
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FEBRUARY 2005

[KM 302]

Sub. Code : 1022

M.Pharm. DEGREE EXAMINATION

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

**Sec. A & B : Two hours and
forty minutes**

Sec. A & B : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

1. Give the principle and technique of various methods for the determination of iodine value.
2. What do you mean by crude fibre and dietary fibre? How are they estimated?

SECTION B — (10 × 5 = 50 marks)

3. What is Richertmische value? How it is determined?
4. Write the salient features of the functioning of ISI.
5. Kjeldhal method.
6. Water activity and its measurement.
7. Determination of benzoic acid in food products.
8. Determination of chemical oxygen demand effluents.

Explain the specifications recommendations by Bureau of Indian Standards, for the following cosmetics and how they are determined?
9. After Shave lotion.
10. Tooth paste.
11. Shampoo.
12. Hair dyes.

AUGUST 2005

[KN 302]

Sub. Code : 1022

M Pharm. DEGREE EXAMINATION

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

1. Long Essay : (2 × 15 = 30)

1. How do you determine the important chemical constituents present in protein? Discuss in detail. How calcium is estimated in food stuffs?

2. Write notes on the various physical, chemical and bacteriological analysis of water suppliers. Discuss the BOD and COD analysis of effluents.

AUGUST 2005

II. Short notes : (10 × 5 = 50)

1. Write the different tests carried out on milk samples. How to determine fat in milk by macro kjeldahl method?

2. What are crude fibre and dietary fibre? How the crude fibre estimated?

3. List out the permitted additives used in food given by joint committee (FAO/WHO) on toxicity. Write a notes on the determination of free sulphur dioxide in Inorganic preservatives.

4. Give a few examples of organic and inorganic preservatives. How do you determine Benzoic acid present in organic preservative?

5. Write in brief about the various trace elements present in food stuffs, which have some toxicological or nutritional importance. Write a notes on the determination of lead as contaminants in food.

6. Point out the different tests carried out on skin cream. How do you perform the microbiological examination on skin cream?

7. What are the different tests carried out on Hair creams? Explain about microbiological, thermal stability and total fatty acid content.

8. Discuss in detail about the determination of Heavy metals and Arsenic in KUMKUM POWDER (BIS).

9. Discuss the determination of volatile acids in butter fat. Write on the interpretation and use of R, P and values.

10. What are edible oils? Give examples. What are the tests performed on them?

[KO 302] MARCH 2006

Sub. Code : 1022

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (2 × 15 = 30)

1. Give the principle and technique of various methods for the determination of fats.
2. Discuss the few methods of analysis to determine the quality of raw material used in cosmetic industries.

II. Short notes on : (10 × 5 = 50)

1. Write notes on crude and dietary fibre.
2. How do you determine benzoic acid in food products?
3. Write the specific guidelines for hygienic manufacture of cosmetics.
4. Write in brief about natural emulsifier and stabiliser.
5. Discuss a method to determine the organic nitrogen content in food and food products.
6. Give the important (ISI) specification of toothpaste.
7. Write a note on synthetic detergent based shampoo.
8. Define R.M. value. How do you determine the R.M. value in butter fat?
9. Discuss the important safety tests for the evaluation of cosmetic.
10. Write a very brief note on aftershave lotion.

SEPTEMBER 2006

[KP 302]

Sub. Code : 2826

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. (a) How will you evaluate abrasive property of tooth paste?

(b) What are the ideal properties of shampoo?
(10 + 10 = 20)

2. Give an account on various physical and chemical methods used in quality control of edible oils. (15)

3. Explain the "Bureau of Indian standards" for the sampling of various cosmetic products both from bulk and from packaged containers. (15)

II. Short notes : (6 × 5 = 30)

1. Explain the principles of any two methods used in the estimation of fat content in food products.

2. What is Polensky value? How will you determine the same?

3. Give a brief account on the quality control of Honey.

4. Explain any two methods for the estimation of moisture content in food products.

5. What do you mean by B.O.D.? How will you determine the same?

6. Write notes on the quality control of hair dyes.

[KQ 302] MARCH 2007 Sub. Code : 2826

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II – FOOD AND COSMETIC ANALYSIS

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. Give the principle and technique of various methods for the determination of fat. (20)

2. What do you mean by crude fibre and dietary fibre? How are they estimated? (15)

3. Write a notes on the various physical, chemical and bacteriological analysis of water suppliers. Discuss the BOD and COD analysis of effluents. (15)

II. Short notes : (6 × 5 = 30)

1. What is Iodine value? Give its significance. How do you determine the R.M value in butter fat?

2. Discuss the important safety tests for the evaluation of cosmetics.

3. Write the different tests carried out on milk and milk products. How to determine fat in milk products by Kjeldahl method?

4. Discuss the various tests carried out on skin powder. How do you perform the microbiological examination on skin cream?

5. Write a brief notes on emulsifiers and stabilisers.

6. Discuss in detail about the determination of Heavy metals and arsenic in Kum Kum powder.

MARCH 2007

[KQ 328]

Sub. Code : 2864

M.Pharm. DEGREE EXAMINATION.

(Regulations 2006)

First Year

Branch V — Pharmaceutical Analysis

Paper II — PHARMACEUTICALS COSMETIC
ANALYSIS

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (10 + 10 = 20)

1. (a) Elaborate the ICH guidelines for stability studies of drugs.

(b) Give an account on Indian standard specifications laid down by Bureau of Indian standards for sampling and testing of cosmetics in finished form.

2. Discuss in detail quality control and in process quality control for parenteral and sterile preparations. (15)

3. (a) Name any two official drugs (IP) which are assayed using complenometry and discuss the principle and procedure involved in any one of them. (9)

(b) Discuss the factors affecting extraction of drugs. (6)

II. Short notes : (6 × 5 = 30)

1. Discuss the methods of analysis to determine the quality of dental products.

2. Add a note on quality control of Radio pharmaceuticals.

3. Discuss the quantitative analysis of anti oxidants in pharmaceutical preparations.

4. Discuss the principle involved in the assay of diazepam tablets using UV spectroscopy.

5. Discuss briefly the general methods of analysis to determine the quality of raw materials used in cosmetic industry.

6. What are the ideal properties of skin care products.

SEPTEMBER 2007

[KR 302]

Sub. Code : 2826

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch V — Pharmaceutical Analysis

Paper II — FOOD AND COSMETIC ANALYSIS

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. Explain the specifications laid down by Bureau of Indian Standards for the following cosmetics and discuss how they are detected. (20)

- (a) Skin creams
- (b) Shampoos.

2. What are the common adulterants in the following and discuss how they can be detected.

- (a) Honey
- (b) Tea
- (c) Soft drinks. (15)

3. (a) Write the various methods for the determination of microbial contamination in cosmetic preparation.

(b) Write a method for analysis to determine the quality of toothpaste and shampoos. (15)

II. Short notes : (6 × 5 = 30)

1. Discuss the determination of volatile oils in butter fat. Explain the interpretation and use of R and P values.

2. List the toxicity tests performed for cosmetics. Explain briefly the need for toxicity tests for cosmetics.

3. What is Cyanogen value? Explain the determination and significance of Cyanogen value.

4. Add a note on the methods of estimation of citric acid in citrus fruits.

5. Write a note on Boudovin test.

6. Explain any one method for the determination of water content.