

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 Richertmiscle 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.

M.Pharm. DEGREE EXAMINATION.

First Year

(Regulations 2006)

Branch V — Pharmaceutical Analysis

**Paper II — PHARMACEUTICAL 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. (a) What are the sources for related substances and impurities present in drugs? Give any four examples for such related substances and impurities.

(b) What is the effect of impurities on drug stability and therapeutic actions? (10 + 10)

2. Explain the principles with equations, if any and procedures involved in the assay of any one drug official in I.P. for the following :

(a) Non aqueous titrations using sodium methoxide titrant.

(b) Complexometric back titration

(c) UV – Extinction method. (5 + 5 + 5)

3. (a) Why is it necessary to determine quality of raw materials used in manufacturing of cosmetics?

(b) Enumerate any one example each for drug along with methodology in brief, that are extracted by LLE and SPE methods. (10 + 5)

II. Short notes : (6 × 5 = 30)

1. With examples explain the principle involved in Diazotization titration?

2. What are Radiopharmaceuticals? Write the general Q.C. tests for Radiopharmaceuticals.

3. Write methods to analyze the quality of various Personal hygiene products.

4. Write a note on IPQC tests for sterile preparations.

5. What are the various antioxidants and colouring materials used in pharmaceutical formulations?

6. Why is it essential to test for toxicity in cosmetic preparations?

September 2008

[KT 328]

Sub. Code : 2864

M.Pharm. DEGREE EXAMINATION.

First Year

(Regulations 2006)

Branch V — Pharmaceutical Analysis

**Paper II — PHARMACEUTICAL AND COSMETIC
ANALYSIS**

Q.P. Code : 262864

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (3 × 20 = 60)

1. Add a detail note

(a) Stability testing protocol for pharmaceutical products.

(b) Toxicity testing in cosmetics. (12 + 8)

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2. Explain the different methods of analysis to determine the quality of the following finished cosmetic products.

- (a) Hair care products.
- (b) Personal hygiene products.
- (c) Hair setting lotions.
- (d) Eye shadows. $(4 \times 5 = 20)$

3. Explain the principle and procedure involved in the official assays of

- (a) Allopurinol tablets.
- (b) Metronidazole tablets.
- (c) Piperazine phosphate tablets.
- (d) Verapamil tablets. $(4 \times 5 = 20)$

II. Short notes : $(8 \times 5 = 40)$

1. Enumerate different radiochemical methods useful in analysis of drugs.

2. Give an account on shelf life prediction.

3. Write a note on different excipients used in cosmetics.

4. Explain the methods of identifications and determination of antioxidants.

5. List out different methods of drugs extraction and add a note on membrane filtration.

6. Add a note on the significance of Accelerated stability analysis.

7. How do you determine the quality of raw materials in cosmetic industry?

8. Write a note on in process quality control testing of sterile preparations.
