



Faculty of Health Sciences
BSc. (Hons) in Cosmetics Sciences
BCS 3153 Cosmetics Technology II
End-Semester Examination SEQ
3rd Year 1st Semester
6th Batch BCS (8th batch FHS)

Date: 3rd August 2026

Time: 09.00 AM– 12.00 PM (Three Hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions in four pages.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

QUESTION 1

(100 Marks)

- 1.1 Two cosmetic powder formulations, Formulation **X** and Formulation **Y**, were developed for use in compact powder manufacturing. The flow properties of both formulations were evaluated using the standard tapping method. The data obtained are given in the table below.

Parameter	Formulation X	Formulation Y
Mass of powder (g)	50	50
Initial volume before tapping (mL)	120	140
Final volume after 700 taps (mL)	90	95

- 1.1.1 Calculate the bulk density of each formulation. (20 Marks)
- 1.1.2 Calculate the tapped density of each formulation. (20 Marks)
- 1.1.3 Determine the “Hausner’s ratio” for both formulations. (20 Marks)
- 1.1.4 Based on the following table showing flowability and Hausner’s ratio values, justify which formulation is more suitable for compact powder or tablet manufacturing. (20 Marks)

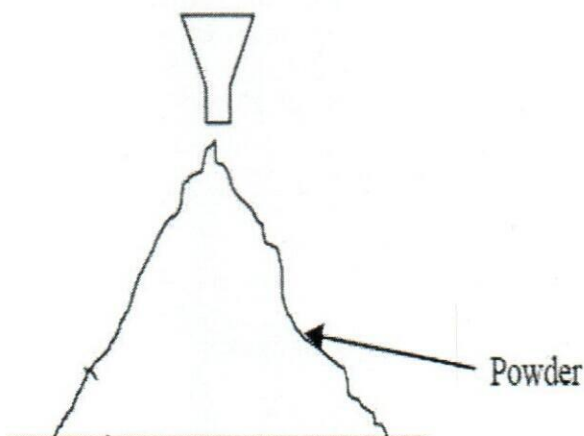
Flowability	Hausne ratio
Excellent	1.00-1.11
Good	1.12-1.18
Fair	1.19-1.25
Passable	1.26-1.34
Poor	1.35-1.45
Very poor	1.46-1.59
Awful	>1.60

- 1.2 List **four (04)** factors affecting solubility of the cosmetic formulation.

(20 Marks)

QUESTION 2**(100 Marks)**

- 2.1 List **four (04)** factors affecting the flowability of powders. (20 Marks)
- 2.2 During quality control testing of a cosmetic loose powder formulation (face powder), the sample was allowed to flow freely through a funnel and form a conical heap on a flat surface, as shown in the figure below. Based on the following figure, answer the questions given below.



- 2.2.1 Calculate the angle of repose (θ) of the cosmetic powder using the appropriate formula. (20 Marks)
- 2.2.2 Evaluate the flowability of the cosmetic powder, based on the calculated angle of repose, (*Flow Property: Excellent: 25–30°, Good: 31–35°, Fair: 36–40°, Poor: >40°*) (20 Marks)
- 2.2.3 Suggest **two (02)** formulation improvement strategies if the powder shows poor flow properties. (20 Marks)
- 2.3 Name **one (01)** other method used to test the flowability of powders, apart from the fixed funnel method. (20 Marks)

QUESTION 3**(100 Marks)**

- 3.1 A cosmetic company performed a sieve analysis to determine the particle size distribution of a face powder formulation. A 50 g powder sample was placed on a stack of standard sieves and shaken using a sieve shaker for 10 minutes. The mass of powder retained on each sieve is shown in the table below.

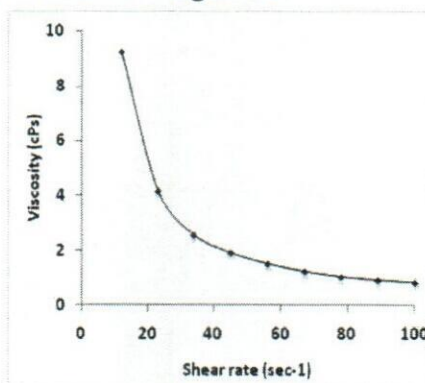
Mesh No.	Sieve size (μm)	Mass Retained (g)
35	500	23
45	355	4
60	250	6.5
80	180	2
120	125	7.5
Pan	<125	5
Total	-	50

- 3.1.1 Calculate the “percentage retained” on each sieve. (25 Marks)

- 3.2 Comment on the quality of the face powder fraction that shows the highest percentage retention. (15 Marks)
- 3.3 List **four (04)** differences between monophasic and biphasic liquid formulations. (20 Marks)
- 3.4 State **two (02)** differences between the cold process and hot process of soap making. (20 Marks)
- 3.5 State **two (02)** limitations of plastics used as packaging material of cosmetics. (20 Marks)

QUESTION 4**(100 Marks)**

- 4.1 The cosmetic formulation exhibits different rheological behaviors. Answer the following questions based on the rheological behavior shown in **figure X**.

**figure X**

- 4.1.1 Identify the rheological behavior shown in the figure X. (20 Marks)
- 4.1.2 Describe the rheological behavior shown in the figure X. (20 Marks)
- 4.1.3 Give **two (02)** examples of cosmetic products that exhibit the rheological behavior shown in figure X. (20 Marks)
- 4.2 List **four (04)** key stability indicators that should be monitored during stability studies of a cosmetic formulation. (20 Marks)
- 4.3 Compare antimicrobial preservatives and antioxidant preservatives used in cosmetic products. (20 Marks)

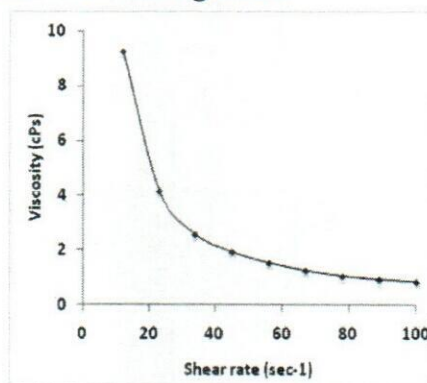
QUESTION 5**(100 Marks)**

- 5.1 Evaluate whether each of the following changes will improve or reduce the stability of an emulsion, giving proper justification for your answer.
- 5.1.1 The droplet size of the dispersed phase is reduced using high-shear homogenization. (20 Marks)
- 5.1.2 The emulsion is stored at a temperature significantly higher than its formulation temperature. (20 Marks)
- 5.1.3 The amount of dispersed phase in an emulsion is increased beyond the optimal level. (20 Marks)
- 5.2 What is meant by "blooming effect of glasses"? (20 Marks)

- 3.2 Comment on the quality of the face powder fraction that shows the highest percentage retention. (15 Marks)
- 3.3 List **four (04)** differences between monophasic and biphasic liquid formulations. (20 Marks)
- 3.4 State **two (02)** differences between the cold process and hot process of soap making. (20 Marks)
- 3.5 State **two (02)** limitations of plastics used as packaging material of cosmetics. (20 Marks)

QUESTION 4**(100 Marks)**

- 4.1 The cosmetic formulation exhibits different rheological behaviors. Answer the following questions based on the rheological behavior shown in **figure X**.

**figure X**

- 4.1.1 Identify the rheological behavior shown in the figure **X**. (20 Marks)
- 4.1.2 Describe the rheological behavior shown in the figure **X**. (20 Marks)
- 4.1.3 Give **two (02)** examples of cosmetic products that exhibit the rheological behavior shown in figure **X**. (20 Marks)
- 4.2 List **four (04)** key stability indicators that should be monitored during stability studies of a cosmetic formulation. (20 Marks)
- 4.3 Compare antimicrobial preservatives and antioxidant preservatives used in cosmetic products. (20 Marks)

QUESTION 5**(100 Marks)**

- 5.1 Evaluate whether each of the following changes will improve or reduce the stability of an emulsion, giving proper justification for your answer.
- 5.1.1 The droplet size of the dispersed phase is reduced using high-shear homogenization. (20 Marks)
- 5.1.2 The emulsion is stored at a temperature significantly higher than its formulation temperature. (20 Marks)
- 5.1.3 The amount of dispersed phase in an emulsion is increased beyond the optimal level. (20 Marks)
- 5.2 What is meant by "blooming effect of glasses"? (20 Marks)



Faculty of Health Sciences
B. Sc. (Hons) in Cosmetics Sciences
BCS 3133
Dermatology- I
3rd Year 1st Semester
End Semester SEQ Examination
BCS 6th Batch (8th FHS Batch)

Date	: 30th July 2026
Time	: 9.00 a.m. – 12.00 p.m. (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions in **TWO** pages.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

Question 1 **(100 marks)**

1.1 A 22-year-old university student complains of excessive facial oiliness, enlarged pores, recurrent acne lesions, and difficulty maintaining makeup throughout the day.

1.1.1 Analyze the physiological factors responsible for oily skin. (25 marks)

1.1.2 Explain how excessive sebum production contributes to acne development. (25 marks)

1.2 Compare and contrast followings.

1.2.1 Keratinocytes and melanocytes (25 marks)

1.2.2 Eumelanin and Pheomelanin (25 marks)

Question 2 **(100 marks)**

2.1 Evaluate the consequences of impaired sweat gland function on skin health and cosmetic appearance. (25 marks)

2.2 Analyze the role of sweat in maintaining skin homeostasis. (25 marks)

2.3 Explain how alterations in sweat composition affect skin health. (25 marks)

2.4 Describe how skin acts as a barrier. (25 marks)

Question 3 **(100 marks)**

3.1 List **five (05)** main causes for acne. (20 marks)

3.2 Compare and contrast hyperpigmentation and hypopigmentation condition. (25 marks)

3.3 Discuss the factors that are determining the severity of irritant contact dermatitis. (30 marks)

3.4 Write a short note on superficial fungal infection. (25 marks)

Question 4**(100 marks)**

4.1 A cosmetic company plans to develop a nutritional supplement for improving skin appearance. List **five (05)** ingredients you would like to incorporate it. (20 marks)

4.2 A 45-year-old client who frequently consumes processed foods, rarely eats fruits and vegetables, and has low water intake presents with dull skin, fine wrinkles, poor wound healing, and increased skin sensitivity.

4.2.1 Evaluate how the client's dietary habits may have contributed to these skin changes. (25 marks)

4.2.2 Recommend evidence-based nutritional interventions to improve skin health and justify each recommendation. (25 marks)

4.3 Relate skin pH in protection role of human skin. (30 marks)

Question 5**(100 marks)**

5.1 Critically evaluate the age-related changes in the following skin biomolecules and assess how these changes contribute to the structural and functional alterations observed in ageing skin.

5.1.1 Collagen (25 marks)

5.1.2 Elastin (25 marks)

5.1.3 Hyaluronic acid (25 marks)

5.2 Why do babies have more difficulties in regulating their body temperature than adults? (25 marks)

Question 6**(100 marks)**

6.1 Compare superficial, medium, and deep chemical peels in terms of depth of action, agents used, and clinical outcomes. (30 marks)

6.2 Critically evaluate the role of dermal fillers in facial rejuvenation. (30 marks)

6.3 Outline **four (04)** limitations of dermal fillers. (20 marks)

6.4 List **five (05)** benefits of laser therapy. (20 marks)



Faculty of Health Sciences
BSc. (Hons) in Cosmetics Sciences
BCS 3124 Herbal Cosmetic Science
End-Semester Examination SEQ
3rd Year 1st Semester
6th Batch BCS (8th batch FHS)

Date: 27th July 2026

Time: 09.00 AM– 12.00 PM (Three Hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions in two pages.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

1. (100 Marks)

1.1 Indicate the civilization most closely associated with each of the following historical evidences of cosmetic practices. Select your answer from the options given below.

(Ancient Egypt, Biblical Times, Ancient Greece, Ancient Rome, Elizabethan Times, Medieval Times)

- 1.1.1 Henna, extracted from *Lawsonia inermis* leaves, was popular for hair dye and nail stains. (10 Marks)
- 1.1.2 Women believed that applying a night poultice made of bread and milk could reduce the signs of aging. (10 Marks)
- 1.1.3 Awareness of cosmetic dangers existed during this period, “Pliny” recommended precautions when using mercury-based hair dyes, while the poet “Juvenal” criticized the excessive use of facial makeup. (10 Marks)
- 1.1.4 Used an antimony compound called kohl for eye shadow. (10 Marks)

1.2 What is the basis for classifying natural products under the “chemical classification” system? (20 Marks)

1.3 Analyze **two (02)** merits and **two (02)** demerits for each of the following classification systems of natural products.

- 1.3.1 Alphabetical classification (20 Marks)
- 1.3.2 Taxonomical classification (20 Marks)

2. (100 Marks)

2.1 List **two (02)** examples of organized and unorganized crude drugs used in herbal cosmetics. (20 Marks)

2.2 A herbal cosmetic company stores dried plant materials in a warehouse. Recently, staff observed mold growth in several batches of raw herbs, leading to product rejection.

- 2.2.1 Identify the main failure in the storage system. (10 Marks)
- 2.2.2 Explain how the issue could have been prevented. (10 Marks)
- 2.2.3 Suggest **two (02)** additional storage improvements to ensure herb stability. (10 Marks)

- 2.3 Different plant materials are stored together, leading to mixing and poor traceability.
- 2.3.1 Identify **two (02)** problems associated with this storage practice. (10 Marks)
 - 2.3.2 Explain why segregation of herbal materials is important in storage. (15 Marks)
 - 2.3.3 Suggest **two (02)** measures to improve organization and traceability in the storage facility. (10 Marks)
 - 2.3.4 Explain how poor traceability can affect the quality control of herbal cosmetic products. (15 Marks)
- 3. (100 Marks)**
- 3.1 State **one (01)** limitation of dry heat sterilization. (15 Marks)
 - 3.2 What is the main effect of gamma irradiation on microorganisms in raw herbal materials? (20 Marks)
 - 3.3 What is the purpose of aeration after ethylene oxide treatment in herbal sterilization? (15 Marks)
 - 3.4 List **three (03)** considerations in selecting a sterilization method for raw herbs. (30 Marks)
 - 3.5 List **four (04)** tests used to evaluate the quality of raw herbs. (20 Marks)
- 4. (100 Marks)**
- 4.1 List **two (02)** reasons of adulteration of herbal materials. (20 Marks)
 - 4.2 A herbal raw material supplier collected clove samples from different sources. During inspection, it was found that leaves, petioles, soil particles, and small stones were mixed with the clove buds.
 - 4.2.1 Identify the method of adulteration involved in this case. (15 Marks)
 - 4.2.2 Explain how this type of adulteration may occur. (15 Marks)
 - 4.2.3 Suggest **two (02)** measures to prevent this problem during collection and storage. (20 Marks)
 - 4.3 List **two (02)** causes of unintentional adulteration. (15 Marks)
 - 4.4 List **two (02)** ways of intentional adulteration can be occurred in herbal materials. (15 Marks)
- 5. (100 Marks)**
- 5.1 A cosmetic company is developing a lip balm for long-lasting lip protection and enhanced appearance. The formulation team has selected "canada balsam", "polyurethane resin", "zinc oxide" and "mica" as key ingredients to improve the product's protective properties, durability, and aesthetic appeal. Before the product is launched the research team must evaluate the suitability of these ingredients in terms of safety, efficacy and consumer acceptance.
 - 5.1.1 Explain the role of the canada balsam and polyurethane resin in the lip balm formulation. (20 Marks)
 - 5.1.2 Compare canada balsam and polyurethane resin based on the origin and cosmetic applications. (30 Marks)
 - 5.1.3 Identify the mineral ingredients used in the formulation. (10 Marks)
 - 5.1.4 Discuss how the chemical properties of canada balsam and polyurethane resin influence the consumer acceptability of the cosmetic product. (20 Marks)
 - 5.1.5 Evaluate potential limitations of using canada balsam and zinc oxide in a cosmetic formulation. (20 Marks)
- 6. (100 Marks)**
- 6.1 Evaluate the role of lipids in cosmetic industry. (30 Marks)
 - 6.2 List **four (04)** limitations of lipids in cosmetics. (20 Marks)
 - 6.3 State **four (04)** functions of carbohydrate ingredients in oral care products. (20 Marks)
 - 6.4 Discuss quality control measures of carbohydrates in cosmetic products. (30 Marks)



Faculty of Health Sciences

BSc. (HONS) COSMETICS SCIENCES

BCS 3153 Cosmetic Technology II

End Semester Examination SEQ

3rd Year 1st Semester

4th Batch BCS

Date: 23rd May 2025

Time: 09.00 a.m – 12.00 noon (Three Hours) INDEX NUMBER:

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

1. (100 Marks)

1.1 List **four (04)** physical properties of cosmetic formulations. (20 Marks)

.....

.....

.....

.....

1.2 Write the function of “**Solubilizers**” used in cosmetic formulations. (20 Marks)

.....

.....

.....

1.3 List **two (02)** different methods used for measuring the angle of repose of powders and granulates. (20 Marks)

.....

.....

1.4 Briefly describe the measuring process of **one** of the processes mentioned above. (40 Marks)

.....

.....

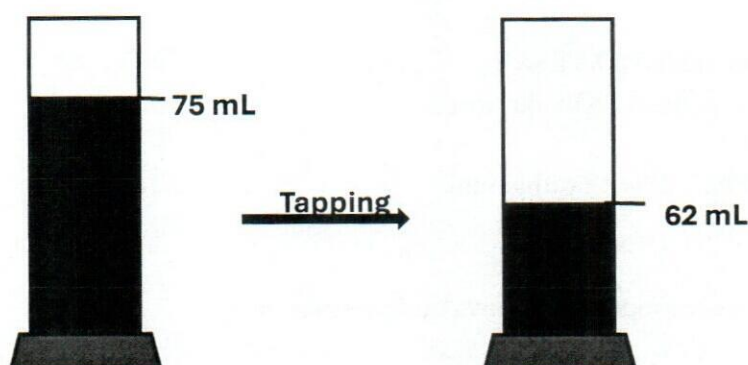
.....

.....

2.

(100 Marks)

2.1. A sample of cosmetic powder was analyzed for its flow properties. The following measurements were recorded. (Mass of the powder = 50 g)



2.1.1 Calculate the bulk density of the powder.

(15 Marks)

2.1.2 Calculate the tapped density of the powder.

(15 Marks)

2.1.3 Using the values obtained above, calculate the Compressibility Index (Carr's Index) of the powder.

(15 Marks)

.....

.....

.....

2.1.4 Based on the Compressibility Index value, assess the flowability of the powder.

(15 Marks)

.....

.....

.....

.....

Carr's index	Flowability
<10	Excellent
11.0-15.0	Good
16-20	Fair
21-25	Passable
26-31	Poor
32-37	Very poor
>38	Awful

2.2. List the **three (03)** different types of dispersion systems.

(15 Marks)

.....

.....

.....

2.3. Complete the following table by filling in the missing disperse phase, disperse medium, or example for each system.

(25 Marks)

Disperse Medium	Disperse Phase	Example
Gas	Liquid	(a).....
Liquid	(b).....	Emulsion
(c)	(d).....	Suspension
Liquid	Gas	(e).....

3. (100 Marks)

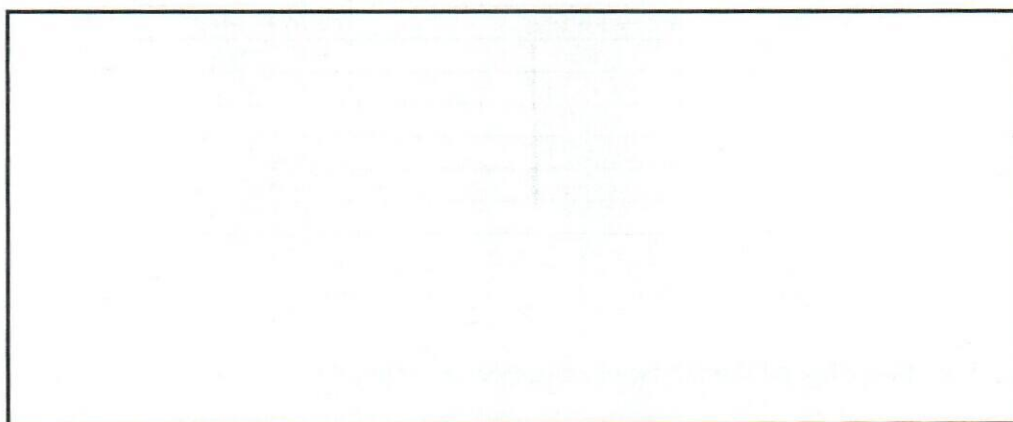
3.1 Define the term "Critical Micelle Concentration (CMC)". (15 Marks)

.....

.....

.....

3.2 Draw a graph to illustrate the Critical Micelle Concentration (CMC) and label the key regions. (15 Marks)



3.3 Give **three (03)** examples of chemical changes that can affect the stability of cosmetic products. (15 Marks)

.....

.....

.....

.....

3.4 List **four (04)** physical changes that may occur in unstable cosmetic products. (20 Marks)

.....

.....

.....

.....

3.5 List **three (03)** physical stress tests that are used to assess the stability of cosmetic products. (15 Marks)

.....

.....

.....

- 3.6 What is the primary purpose of performing a microbial "**challenge test**" on a cosmetic product? (20 Marks)

.....

.....

.....

.....

.....

.....

.....

4. (100 Marks)

- 4.1 Compare the main differences between wet gum and dry gum emulsification methods. (20 Marks)

.....

.....

.....

.....

.....

.....

- 4.2 State **five (05)** cosmeceutical applications of emulsion formulations. (20 Marks)

.....

.....

.....

.....

.....

.....

- 4.3 List **five (05)** factors affecting the stability of emulsions. (25 Marks)

.....

.....

.....

.....

.....

- 4.4 List **four (04)** types of instabilities that can occur in emulsions. (20 Marks)

.....

.....

.....

4.5 Name **three (03)** equipment used for emulsion preparation in the cosmetic industry.

(15 Marks)

.....

.....

.....

.....

5.

(100 Marks)

5.1 List **two (02)** tests that can be used to identify emulsion formulations.

(10 Marks)

.....

5.2 Outline **one (01)** of the methods listed above.

(20 Marks)

[illegible]

5.3. List **three (03)** factors affecting the stability of suspensions.

(30Marks)

.....

.....

.....

.....

5.4. Write the saponification reaction in the context of soap making.

(20 Marks)

.....

5.5. List **one (01)** advantage and **one (01)** disadvantage of the cold process of soap making.

(20 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

6.

(100 Marks)

6.1. Differentiate primary, secondary, and tertiary packaging in cosmetics, and provide **one (01)** example for each.

(24 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

6.2. Write **three (03)** advantages of “Transdermal drug/ active ingredient delivery system” in the cosmetic industry.

(18 Marks)

.....

.....

.....

.....

.....

.....

.....

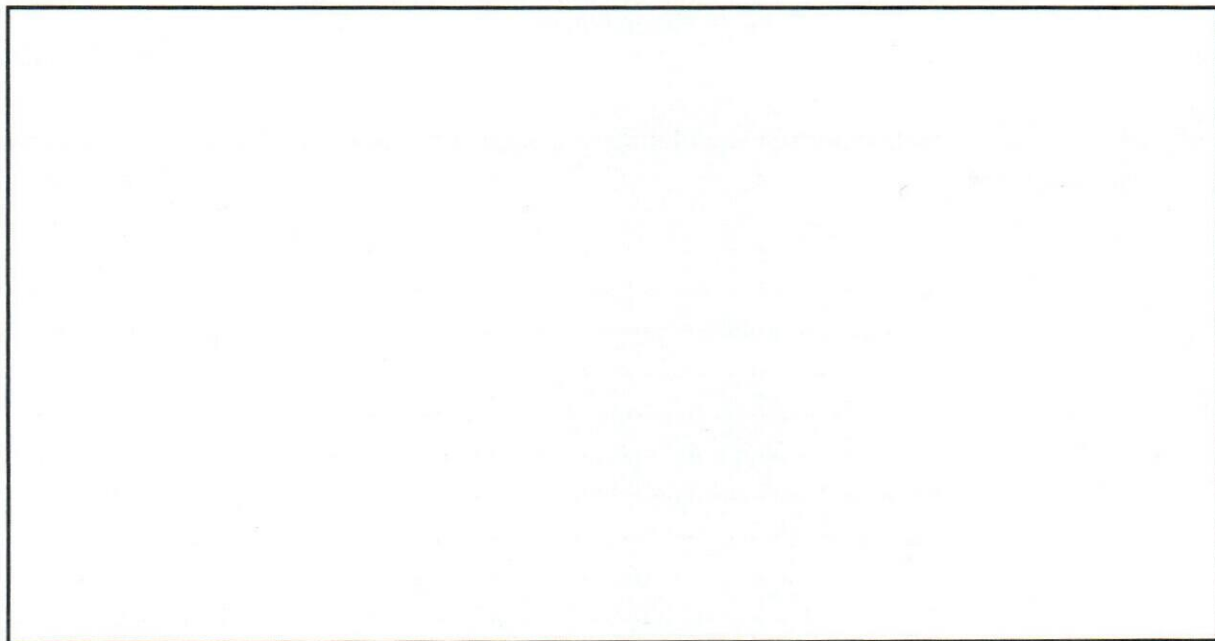
.....

.....
.....
.....
.....

6.3. List **one (01)** challenge in “Transdermal drug/ active ingredient delivery system” in the cosmetic industry. (13 Marks)

.....
.....
.....
.....

6.4. Draw and label the main parts of a transdermal patch. (20 Marks)



6.5. State **four (04)** key factors that must be considered in the formulation and stability of monophasic liquid dosage forms. (25 Marks)

.....
.....
.....
.....
.....
.....
.....
.....



Faculty of Health Sciences
B. Sc. (Hons) in Cosmetic Science
Dermatology- I
BCS 3133
3rd Year 1st Semester
End Semester SEQ Examination
BCS 4th Batch

Index No:.....

Date : 21st May 2025
Time : 9.00 a.m. – 12.00 noon (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.
- You are not allowed to take out the examination papers.

Question 1

(100 marks)

1.1 Compare and contrast the following.

1.1.1 Oily skin and Dry skin

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.1.2 Whiteheads and Blackheads

(25 marks)

.....

.....

.....

.....

.....

1.1.3 Eumelanin and Pheomelanin

(25 marks)

1.1.4 Collagen and Elastin

(25 marks)

Question 2

(100 marks)

2.1 List main cell layers present in thick skin.

(20 marks)

2.2 State characteristic features of each layers you mentioned in 2.1

(30 marks)

(25 marks)

(100 marks)

(25 marks)

(25 marks)

3.3 List **five (05)** importance of Vitamin A on human skin.

(25 marks)

[illegible]

3.4 Write a short note on sebaceous gland.

(25 marks)

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Question 4

(100 marks)

4.1 List **five (05)** benefits of laser therapy.

(25 marks)

[illegible]

4.2 Write a short note on chemical peeling

(25 marks)

[illegible]

.....

.....

.....

4.3 What are the adverse effects of non-surgical nose shaping by fillers? (25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4.4 Write a short note on the dermal filler. (25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 5

(100 marks)

5.1 Compare eccrine and apocrine sweat glands.

(20 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

5.2 List **three (03)** principal cells present in the epidermis. (15 marks)

.....

.....

.....

.....

5.3 List **three (03)** characters important to identify the combination skin. (15 marks)

.....

.....

.....

.....

5.4 State the specific characteristics of skin in following ages.

5.4.1 Baby's' skin (25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

5.4.2 40 to late 50 years old (25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 6**(100 marks)**

6.1 Write a short note on the following.

6.1.1 Psoriasis

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

6.1.2 Acne pustules

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

6.1.3 Cellulitis

(25 marks)

.....

.....

.....

.....

.....

.....

[illegible]

6.1.4 Candidiasis

(25 marks)

[illegible]



Library

00012



Faculty of Health Sciences
BSc. (HONS) COSMETICS SCIENCES
BCS 3124 Herbal Cosmetic Science
End Semester Examination SEQ
3rd Year 1st Semester
4th Batch BCS

Date: 19th May 2025

Time: 09.00 a.m – 12.00 p.m (Three Hours)

INDEX NUMBER:

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

1. (100 Marks)

1.1 Write one (01) of the historical significances of cosmetics use or the development of each of the following civilizations or periods. (20 Marks)

Civilizations or Periods	Example of cosmetic use or development
1.1.1 Ancient Egypt	
1.1.2 Biblical Times	
1.1.3 Ancient Rome	
1.1.4 Medieval Times	

1.2 Define the term "**Crude Drug**".

(15 Marks)

.....

.....

.....

.....

1.3 What is the basis for classifying natural products under the **pharmacological** classification system?

(15 Marks)

.....

.....

.....

.....

1.4 What is the basis for classifying natural products under the **chemical** classification system?

(10 Marks)

.....

.....

.....

.....

1.5 Write **two (02) merits** and **two (02) demerits** for each of the following natural product classifications.

1.5.1 Alphabetical Order Classification

(20 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.5.2 Taxonomical Classification

(20 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

2.

(100 Marks)

2.1 List **three (03)** benefits of maintaining modernized storage conditions for natural products.

(15 Marks)

.....

.....

.....

.....

.....

.....

.....

2.2 Outline the modernized storage practices for raw herbs in cosmetic manufacturing.

(40 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

This image shows a full page of a document template designed for handwritten notes or essays. It features approximately 28 evenly spaced, thin grey horizontal lines across the entire width of the page. The margins are consistent on all sides, providing ample space for writing. There are no pre-printed questions, headings, or other markings on the page.

2.3 Write a short description of “Steam Sterilization”.

(15 Marks)

This image shows a full page of primary-ruled paper. It features ten sets of horizontal dashed lines, each set consisting of three parallel lines. These lines are evenly spaced across the entire page, providing a guide for handwriting practice. The background is white, and there are no margins or additional markings.

2.4 Why does ethylene oxide sterilization require strict safety precautions despite its high effectiveness? (15 Marks)

.....

.....

.....

.....

2.5 List **three (03)** reasons for adulteration of natural products. (15 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

3. (100 Marks)

3.1 Briefly outline the **two (02)** main types of adulteration. (25 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.2 List **four (04)** different ways of adulteration that happen indirectly. (25 Marks)

.....

.....

.....

.....

3.3 Write **five (05)** types of evaluation methods of adulteration.

(25 Marks)

.....

.....

.....

.....

.....

.....

.....

3.4 State **four (04)** techniques used for the analysis of chemical groups in phytoconstituents.

(25 Marks)

.....

.....

.....

.....

4.

(100 Marks)

4.1 The following table contains the cosmeceutical important lipid sources. Give **one (01)** cosmetic use of each lipid source.

(40 Marks)

Name of the Lipid	One (01) Cosmetic Use
Castor oil	
Joboba oil	
Almond oil	
Sesame oil	
Coconut oil	

5.

(100 Marks)

5.1 The following table contains the important carbohydrate sources. Give **one (01)** cosmetic use of each carbohydrate source. (30 Marks)

Name of the Carbohydrate	One (01) Cosmetic Use
Pectin	
Xanthan gum	
Tragacanth	
Acacia	
Starch	

5.2 Write **one (01)** difference between racemose and cymose inflorescence types.

(20 Marks)

5.3 Balsams are natural, aromatic resins that come from trees and plants. While they have been used traditionally for their fragrance and soothing properties.

5.3.1 Write **two** types of balsams used in cosmetics. (10 marks)

.....

.....

5.3.2 Write **four** benefits of balsams in cosmetics. (20 marks)

.....

.....

.....

5.3.3 Write **two** types of resins used in cosmetics along with **two** examples for each type. (20 marks)

.....

.....

.....

6. (100 marks)

Cosmetic minerals are naturally occurring or synthetically produced mineral compounds used in beauty and personal care products.

6.1 What are cosmetic minerals? (20 marks)

.....

.....

.....

6.2 Write **two** classes of minerals and briefly describe the difference. (20 Marks)

.....

.....

.....

.....

.....

6.3 Write **four** specificities of cosmetic minerals. (20 marks)

.....

.....

.....

.....

6.4 Write **four** components of mineral cosmetics.

(20 marks)

.....
.....

6.5 Justify “why mineral-based cosmetics are always safer and better for the skin compared to traditional cosmetics”.

(20 marks)

.....
.....
.....
.....
.....
.....



BCS 3124 Herbal Cosmetic Science
Special Repeat Examination SEQ
3rd Year 1st Semester

INDEX NUMBER:

Date: ~~29th~~ 22nd November 2024

Time: 09.00 a.m. – 12.00 p.m. (Three Hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

Question 01

(100 marks)

1.1 State **five (05)** historical evidence found on the cosmetic use in the ancient civilizations. (30 Marks)

[illegible]

1.2 Write **four (04)** examples of Organized herbal drugs. (20 Marks)

.....

.....

.....

1.3 Define the following terms of crude drug classification. (30 Marks)

1.3.1 Morphological classification

.....

.....

.....

1.3.2 Pharmacological classification

.....

.....

.....

.....

1.4 State **one (01)** advantage and **one (01)** disadvantage of chemical classification of crude drugs. (20 Marks)

.....

.....

.....

.....

Question 02

(100 Marks)

2.1 Write **two (02)** advantages of the use of natural herbal excipients.

(15 Marks)

.....

.....

.....

2.2 Write **two (02)** disadvantages of the use of natural herbal excipients.

(15 Marks)

.....

.....

.....

2.3 What is the main objective of the sorting process in the post-harvesting processing procedures?

(15 Marks)

.....

.....

2.4 List **three (03)** purposes of primary processing of herbal cosmetic products.

(15 Marks)

.....

.....

.....

.....

2.5 List **four (04)** primary processing methods of herbs in post-harvesting processing.

(20 Marks)

.....

.....

.....

.....

2.6 Outline the storage conditions of herbal raw materials used in cosmetic products.

(20 Marks)

.....

.....

.....

.....

Question 03**(100 Marks)**

3.1 Define the term "Adulteration" in natural herbal products.

(10 Marks)3.2 List **five (05)** different evaluation methods of adulteration.**(20 Marks)**3.3 State **five (05)** different methods of adulteration.**(20 Marks)**3.4 Write **two (02)** chemical tests and **two (02)** instrumental analysis methods used to identify adulteration in natural raw materials used in cosmetic manufacturing.**(20 Marks)**3.5 State **five (05)** examples of intentional adulteration in the natural raw material market.**(30 Marks)**

Question 04**(100 marks)**

4.1 Based on their physical properties, Write the main difference between fixed oils and fat. (10 Marks)

.....

.....

.....

.....

.....

4.2 List **five (05)** different types of natural lipid sources (oils) used in cosmetic formulations and **one (01)** example for each. (40 Marks)

.....

.....

.....

.....

.....

.....

.....

4.3 Write **one (01)** use of carbohydrates containing natural sources in the given below. (30 Marks)

Natural Source	Cosmetic Uses
4.3.1 Acacia	
4.3.2 Guar Gum	
4.3.3 Tragacanth	
4.3.4 Pectin	
4.3.5 Starch	
4.3.6 Xanthan Gum	

4.4

4.4.1 Name **two (02)** main polysaccharide constituents present in the starch. (10 Marks)

.....

.....

.....

4.4.2 Write **two (02)** structural differences between the above-mentioned two polysaccharides. (10 Marks)

.....

.....

.....

Question 05

(100 marks)

5.1

5.1.1 Write **three (03)** physical characteristics of tannins.

(15 Marks)

.....

.....

.....

5.1.2 List **two (02)** major groups of tannins.

(15 Marks)

.....

.....

5.2 Classify the tannins according to the Goldbeaters skin test.

(30 Marks)

.....

.....

.....

.....

.....

.....

.....

5.3 Write **four (04)** examples of natural sources containing tannins.

(20 Marks)

.....

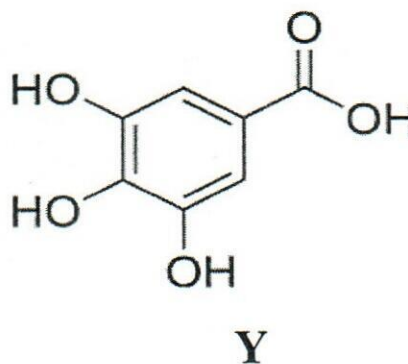
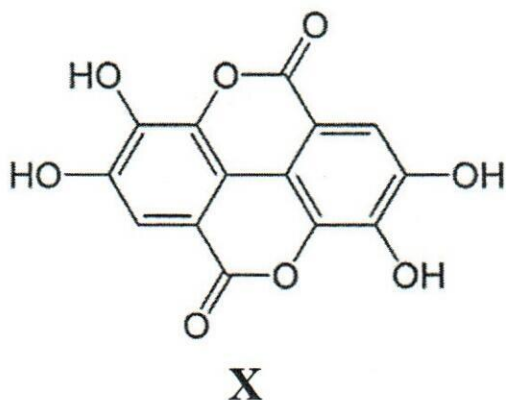
.....

.....

.....

5.4 Name the following tannin compounds mentioned as X and Y.

(20 Marks)



X:

Y:

Question 06

(100 Marks)

6.1 List **four (04)** examples of minerals used in cosmetic products.

(20 Marks)

.....

.....

.....

.....

6.2 List **three (03)** uses of calcium as a mineral in the cosmetic industry.

(15 Marks)

.....

.....

.....

6.3 Write **four (04)** benefits of mineral makeup.

(20 Marks)

.....

.....

.....

.....

6.4 State **two (02)** mineral pigments used in mineral makeup products.

(15 Marks)

.....

.....

6.5

6.5.1 Write **two (02)** examples for Olio resins.

(15 Marks)

.....

.....

6.5.2 List **three (03)** isolation methods of resins.

(15 Marks)

.....

.....



Faculty of Health Sciences
B. Sc. (Hons) in Cosmetic Science
BCS 3133
Dermatology- I
3rd Year 1st Semester
Special Repeat SEQ Examination
3rd BCS Batch

Date : ^{28th} ~~20th~~ November 2023
 Time : 9.00 a.m. – 12.00 p.m. (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

Question 1

(100 marks)

Compare and contrast the following.

1.1 Epidermis and Dermis

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.2 Stratum basale and Stratum spinosum

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.3 Eccrine and Apocrine sweat glands

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.4 Keratinocytes and Merkle cells

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 2

(100 marks)

2.1 List five (05) factors that are influencing the depth of chemical peel penetration.

(25 marks)

.....

.....

.....

.....

.....

.....

2.2 What is the mechanism of chemical peeling?

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

2.3 What is the mechanism of laser therapy in dermatological treatment? (25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

2.4 Write a short note on dermal fillers. (25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 3

(100 marks)

3.1 Compare blackheads and whiteheads.

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.2 List three (03) examples for inflammatory acne.

(15 marks)

.....

.....

.....

.....

3.3 Give a one (01) example for each grade of acne from Grade 1 to Grade 4.

(15 marks)

.....

.....

.....

.....

.....

3.4 List five (05) complications of acne.

(20 marks)

.....

.....

.....

.....

.....

3.5 Write a short note on eczema.

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 4

(100 marks)

4.1 What do antioxidants do for skin?

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4.2 Give three (03) examples for antioxidant compounds present in diet.

(15 marks)

.....

.....

.....

.....

.....

4.3 List five (05) benefits of Vitamin A on human skin.

(25 marks)

.....

.....

.....

.....

.....

4.4 What are the roles of collagen on human skin?

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4.5 What are the two primary forms of Melanin?

(10 marks)

.....

.....

.....

.....

Question 5

(100 marks)

5.1 Define the term Psoriasis.

(20 marks)

.....

.....

.....

.....

.....

5.2 List main five (05) types of psoriasis.

(15 marks)

.....

.....

.....

.....

.....

5.3 List three (03) common causes for psoriasis.

(15 marks)

.....

.....

.....

5.4 Write short notes on the following.

5.4.1 Dry skin

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

5.4.2 Oily skin

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 6

(100 marks)

6.1 Write a short note on structure of sebaceous glands.

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

6.2 State the specific characters of baby's skin.

(25 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....
.....
.....

6.3 State how pH of skin is importance for the protection role of human skin. (25 marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

6.4 Mention possible adverse effects of non-surgical nose shaping by fillers. (25 marks)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....



**Faculty of Health Sciences
B.Sc. (Hons) in Cosmetic Sciences
BCS 3153 – Cosmetic Technology II
End Semester Examination
3rd Year 1st Semester –SEQ- Repeat**

Date: ^{27th} ~~21st~~ of November 2024
Time: 09.00 am – 12.00 pm - Three Hours

INSTRUCTIONS TO CANDIDATES Page

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.

Question 01

(100 marks)

1.1 Write three (03) cosmetically important aerosol formulations.

(15 marks)

.....

.....

.....

1.2 Write three (03) factors affecting the effectiveness of aerosol dosage forms.

(15 marks)

.....

.....

.....

1.3 Write four (04) advantages of aerosol dosage forms.

(20 marks)

.....

.....

.....

1.4 What is “types of aerosol systems’ in cosmetic aerosol dosage forms?

(20 marks)

.....

.....

.....

1.5 What is the “cold filling” with respect to aerosol dosage forms?

(30 marks)

.....

.....

.....

Question 02

(100 marks)

2.1 Write three (03) methods of packaging material.

(15 marks)

.....

.....

.....

2.2 Write three (03) types of glass containers used in cosmetic packaging.

(15 marks)

.....

.....

.....

2.3 Write three (03) important parameters in cosmetic labels.

(30 marks)

.....

.....

.....

2.4 List four (04) factors should consider when packaging drugs in plastic materials.

(20 marks)

.....

.....

.....

2.5 Write three (03) advantages of glass packaging materials.

(20 marks)

.....

.....

.....

Question 03**(100 marks)**

3.1 Write three (03) objectives of trans dermal drug delivery system.

(15 marks)

.....

.....

.....

3.2 Write three (03) examples for penetration enhancers used in trans dermal drug delivery system. (15 marks)

.....

.....

.....

3.3 Write five (05) properties of penetration enhancers.

(20 marks)

.....

.....

.....

.....

.....

3.4 List systems of trans dermal patches.

(30 marks)

.....

.....

.....

3.5 State the term "Iontophoresis."

(20 marks)

.....

.....

.....

Question 04**(100 marks)**

4.1 Classify cosmetics according to their function.

(20 marks)

.....

.....

.....

4.2 Write three (03) raw materials used in soap production.

(20 marks)

.....

.....

.....

4.3 State the term "iodine number."

(30 marks)

.....

.....

.....

4.4 State the term "saponification value".

(30 marks)

.....

.....

.....

Question 05

(100 marks)

5.1 Write the classification of non-aqueous solutions.

(20 marks)

.....

.....

.....

5.2 Write the difference between flocculated and deflocculated solutions.

(20 marks)

.....

.....

.....

5.3 Write the composition of syrup USP and syrup BP.

(30 marks)

.....

.....

.....

5.4 State the undesirable consequences of the preparation of syrup by heat.

(30 marks)

.....

.....

.....

Question 06

(100 marks)

6.1 Write five (05) ideal properties of cosmetics.

(20 marks)

.....

.....

.....

.....

.....

6.2 List the importance of hydrophilic and lipophilic balance value considered in formulation of pharmaceutical emulsions. (30 marks)

.....

.....

.....

.....

6.3 Write five (05) physical properties affected by H-bonding. (20 marks)

.....

.....

.....

6.4 State the difference between oil-in -water and water-in-oil emulsions. (30 marks)

.....

.....

.....

.....

-THE END-