



PAST PAPERS

<i>Faculty</i>	<i>Department / Section/Division</i>
<i>Not Applicable</i>	<i>Learning Resource Centre</i>

**Past Papers**

Faculty of health science

**Bachelor of Science honours in cosmetic science**

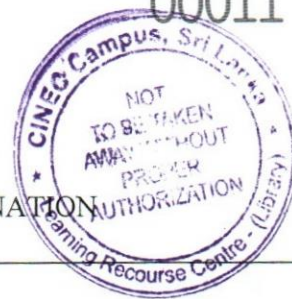
**Year 2 – Semester II**

<i>Document Control &amp; Approving Authority</i>	<i>Senior Director – Quality Management &amp; Administration</i>
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**FACULTY OF HEALTH SCIENCES**  
**B.SC. (HONS) IN COSMETIC SCIENCE**

BCS 2233 – COSMACEUTICS

BATCH – 05 -2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER -END SEMESTER SEQ EXAMINATIONDate : 3<sup>rd</sup> May 2023

Time : 9.00 am to 12.00 pm (Three Hours)

**INSTRUCTIONS TO CANDIDATES**

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

**MATERIALS REQUIRED**

- You may use a scientific calculator. This must not be programmable and may be inspected during the examination. Programmable calculators, PDAs and mobile phones are not permitted in the examinations.

**01. (100 marks)**

- 1.1. State **03** types of information sources. (20 marks)  
 Briefly describe the importance of utilizing information sources in cosmetic industry. (20 marks)
- 1.2. Draw the information ladder and briefly describe how it can be used in obtaining information. (25 marks)
- 1.3. Define term "cosmeceutical product". (10 marks)  
 Classify the cosmetic products according to their physical status along with **02** example. (25marks)

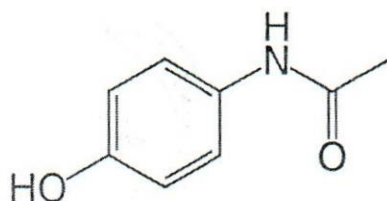
**02. (100 marks)**

- 2.1. List **03** properties of body powders used in cosmetic industry. (15 marks)
- 2.2. State **05** methods of measuring particle size analysis in powder formulation. (20 marks)
- 2.3. State **04** advantages of powders as a dosage form in cosmetic industry. (20 marks)
- 2.4. Briefly discuss on geometric dilution method in powder formulation. (25 marks)
- 2.5. Discuss the methods of compact powder preparation in cosmeceutical industry. (25 marks)

**03. (100 marks)**

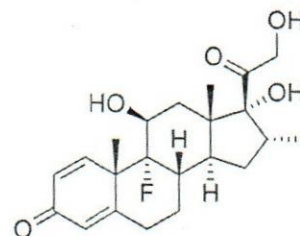
- 3.1. State **03** important effects from the solubility of a cosmetic active molecule in cosmetic formulations. (15 marks)
- 3.2. State **05** properties of an ideal chelating agent used in cosmetic formulations. (20 marks)
- 3.3. Most of cosmetic active molecules are either weak acid or weak bases. (10 marks)
- 3.3.1. Write the ionization constant for weakly acidic active cosmetic molecule. (10 marks)
- 3.3.2. Briefly discuss the importance of ionization of active cosmetic molecules in product formulation. (20 marks)
- 3.4. Presence of Oxygen (O) and Nitrogen (N) containing functional groups usually enhances water solubility. Predict the water solubility of following molecules using the details in the given table. (40 marks)

3.4.1.



3.4.2.

00011



Functional group	Monofunctional Molecule	Polyfunctional Molecule
Alcohol	5 to 6 carbons	3 to 4 carbons
Phenol	6 to 7 carbons	3 to 4 carbons
Ether	4 to 5 carbons	2 carbons
Aldehyde	4 to 5 carbons	2 carbons
Ketone	5 to 6 carbons	2 carbons
Amine	6 to 7 carbons	3 carbons
Carboxylic acid	5 to 6 carbons	3 carbons
Ester	6 carbons	3 carbons
Amide	6 carbons	2 to 3 carbons
Urea, Carbonate, carbamate	2-3	2 carbons
Amine hydrochloride	-	20-30 carbons
Sodium Phenolate	-	10-20 carbons
Sodium/potassium carboxylate	-	20-30 carbons

04.

(100 marks)

4.1. Define ointments relate to cosmetic formulation.

(10 marks)

4.2. Differentiate the composition of yellow ointment and white ointments according to the United State Pharmacopoeia (USP).

(15 marks)

4.3. Write 05 desirable properties of ointment base.

(20 marks)

4.4. Write a descriptive account on preparation of ointments by incorporation method.

(40 marks)

05.

(100 marks)

5.1. List 05 raw materials used in the manufacturing of empty hard gelatin capsules.

(15 marks)

5.2. Outline the basic steps in manufacturing of empty hard gelatin capsules.

(25 marks)

5.2. State 04 requirements of a good toothpaste formulation.

(20 marks)

5.4. Discuss the benefits of using face scrub.

(40 marks)

06.

(100 marks)

6.1. List 02 types of cleansing creams.

(10 marks)

6.2. Write the main function of the following ingredients used in cleansing creams.

(15 marks)

6.2.1. Paraffin wax

6.2.2. Lanolin

6.2.3. Zinc oxide

6.3. List 03 excipients used in cosmeceutical shampoo along with 01 example.

(15 marks)

6.4. Write 04 purposes of granulation process in tablet manufacturing in cosmetic industry.

(20 marks)

6.5. Discuss the wet granulation process in compressed tablet formulation in cosmetic industry.

(40 marks)