



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY MAIN EXAMINATIONS

2021/2022 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF**

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

COURSE CODE: SCI 467

COURSE TITLE: COSMETICS AND TOILETRIES

DATE: WEDNESDAY 27TH APRIL 2022

TIME: 3:00 - 5:00 PM

INSTRUCTIONS TO CANDIDATES

Total Marks: 70

Answer all the Questions

TIME: 2 Hours

QUESTION ONE [17 MARKS]

- What is meant by the following terms: antiperspirants and deodorants? (4 marks)
- Explain how antiperspirants work (4 Marks)
- Describe any three ideal characteristics of lipsticks. (3 marks)
- Why is the breaking load point test done in lipsticks? How is it done? (4 Marks).
- Surfactants play an important role in the formulation of shampoos. List two categories of shampoos (2 Marks)

QUESTION TWO (16 MARKS)

- White bees wax is a category of the solid components of lipstick formulation. List four purposes or reasons why is used (4 Marks)
- Discuss, briefly, at least two categories of special shampoo (4 Marks)
- Explain why antiperspirants can be considered to be deodorants but deodorants cannot be thought of as antiperspirant (3 Marks)
- List and briefly discuss three causes of armpit odor (3 Marks)
- List two types of powder cosmetics (2 Marks)

QUESTION THREE (17 MARKS)

- Briefly discuss three types of powders and their formulation (6 Marks)
- Discuss how is the light type of powder prepared? (4 Marks)
- Give three reasons why cosmetics are used (3 Marks)
- For a lipstick to be successful, it must have certain characteristics. What are these characteristics? List four of them (4 Marks)

QUESTION FOUR (20 MARKS)

- The table below contains the ingredients used in the formulation of cold creams. Use it to answer the questions that follow.

Formula	Quantity for 100 g
White beeswax (emollient)	20 g
Mineral oil (lubricant)	50 g
Distilled water (vehicle)	28.8 g
Borax (buffer)	0.7 g
Perfume (odour)	0.5 g

- i. What are the functions of the following:
- White beeswax (1 mark)
 - Mineral oil (1 mark)
 - Borax (1 mark)
- ii. Briefly discuss the method used in preparing cold creams using the ingredients in the table. (4 marks)
- b) Differentiate between *in vivo* and *in vitro* methods of cream evaluation (2 Marks)
- c) Discuss two types/methods of *in vivo* cream evaluation (4 Marks)
- d) Discuss the water and steam distillation method of extraction of essential oils (4 Marks)
- e) What are the three disadvantages of the method discussed in question (d) above? (3 Marks)