



(University of Choice)

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

MAIN CAMPUS

UNIVERSITY SPECIAL/SUPPLEMENTARY EXAMINATIONS

2021/2022 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF**

BACHELOR OF SCIENCE IN INDUSTRIAL CHEMISTRY

COURSE CODE: SCI 467

COURSE TITLE: COSMETICS AND TOILETRY

DATE: 05/08/2022

TIME: 11.00am - 1.00pm

INSTRUCTIONS TO CANDIDATES

Total Marks: 70

Answer all the Questions

TIME: 2 Hours

QUESTION ONE [18 MARKS]

- a) Define the following two terms: **cosmetics**, and **toiletries** (4 Marks)
- b) State four broad categories of cosmetics. (2 marks)
- c) List five (5) uses of cosmetics. (5 marks)
- d) How is the light type of powder prepared? (4 Marks)
- e) Briefly discuss three causes of armpit odor (3 Marks)

QUESTION TWO [17 MARKS]

- a) Briefly discuss the steam distillation method of essential oil extraction. (6 marks)
- b) Explain at least two ways through which *in vitro* testing of cream can be done (4 Marks)
- c) What are the advantages of the *in vitro* tests? List at least three (3 Marks)
- d) Discuss, briefly, at least two categories of shampoo (4 Marks)

QUESTION THREE (18 MARKS)

- a) Why is a flow property test carried out during the evaluation of powders? How is it carried out? (2 marks)
- b) Generally, a mixture of solvents is preferred rather than a single solvent when formulating nail lacquers. Giving examples, discuss three different types commonly used. (6 marks)
- c) Briefly discuss three types of powders and their formulation (6 Marks)
- d) List any four (4) properties of non-solvent plasticizers used in the formulation of nail lacquers. (4 marks)

QUESTION FOUR [17 MARKS]

- a) Elaborately discuss two types of the solid components of lipstick formulation (6 Marks)
- b) Alkalizing agents like ammonia, Monoethanolamine are added to hair dyes. What is their function? (3 marks)
- c) Explain two main tests that are carried out during the evaluation of hair colourants. (2 marks)
- d) The formula of shampoo contains surfactants. Explain their function and the different types of surfactants in shampoos. (6 marks)