



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

INDUSTRIAL CHEMISTRY

AFT 4401 : FOOD PROCESSING

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: 1 Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- a. Explain giving examples the following terms
 - i. Proteins **Secondary structure** 1m
 - ii. Environmental contaminants 1m
 - iii. Corn syrup 1m
 - iv. Food drying 1m
- b. Name and explain three types of blanching of food. 6m
- c. Identify and explain four risks associated with excessive consumption of confectionary products. 4m
- d. Identify and explain two ways of pasteurizing food. 6m
- e. Using a flow diagram, illustrate systematically the steps involved in wine processing. 6m
- f. Give four reasons why juices and jellies are concentrated 4m

Question TWO

Discuss the steps involved in processing coffee from when they are planted till the coffee is in a cup ready to drink. 20m

Question THREE

- a. Define freezing as a food preservation method 1m
- b. List and explain the golden rules of freezing food. 7m
- c. Discuss six futuristic packaging technologies that stand to change the way food and beverages providers operate. 12m

Question FOUR

- a) What is the meaning of HACCP? 1m
- b) What are the main hazards considered in the HACCP process 5m
- c) Discuss the seven principles of HACCP. 14m

Question FIVE

There are many methods of preserving food. List TEN such methods and EXPLAIN the principles underlying each of the methods. 20m