



UNIVERSITY OF SWAZILAND
Faculty of Health Sciences

DIPLOMA IN ENVIRONMENTAL HEALTH
SUPPLEMENTARY EXAMINATION PAPER 2011

TITLE OF PAPER : FOOD SAFETY & PRESERVATION

COURSE CODE : EHS 313

DURATION : 2 HOURS

MARKS : 100

INSTRUCTIONS :

- : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
- : ANSWER ALL FOUR (4) QUESTIONS
- : EACH QUESTION CARRIES 25 MARKS.
- : WRITE NEATLY & CLEARLY
- :
- : BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.

Question 1

- a. How do prolonged storage, light and heat affects fruits and vegetables nutrients [5]
- b. How does food preservation ensure food security? [10]
- c. Salmonellosis is significantly associated with poultry meat and eggs. Why is this so? [10]
- [25 Marks]**

Question 2

- a) How do the following factors affect the quality of eggs?
- i. Diet [5]
 - ii. Age [2]
 - iii. Environment [3]
 - iv. Infections [5]
- b) How is the egg white different from the yolk? [5]
- c) How does the pH in foods affects microorganisms? [5]
- [25 Marks]**

Question 3

- a). Labeling of all prepackaged foods to be offered to the consumer or catering purposes should conform to the codex general standard for labeling of prepackaged foods.

Define the following terms (Date marking on prepackaged food)

“Sell by date” [2]

“Best before” [2]

“Use by date” [2]

Why are these dates marked on prepackaged foods? [2]

- b). Write short notes on the starter cultures used in the manufacture of cheese or yogurt. [6]
- c). What conditions are necessary for the maillard reaction to occur and give an example of a food product where this spoilage commonly occurs in? [4]
- d) In which foods are these food additives added and why?
- i) Butylated Hydroxyanisole[BHA] [2]
 - ii) Nitrate or nitrite [2]
 - iii) Monosodium glutamate[MSG] [2]
 - iv) Sodium diacetate [1]
- [25 Marks]**

Question 4

There are two ways in which canned or bottled food stuffs may be spoiled, it is either microbiologically or chemically. Distinguish between the two types of caned food spoilage.

- a. microbial spoilage
- b. chemically spoilage

[10]

[15]

[25 Marks]