

EHS433 EXAM PAPER 2021



UNIVERSITY OF ESWATINI
Faculty of Health Sciences
Department of Environmental Health Science

**BSc IN ENVIRONMENTAL HEALTH SCIENCE
MAIN EXAMINATION PAPER 2021
EXAM PAPER**

TITLE OF PAPER: **FOOD INGREDIENTS**

COURSE CODE: EHS 433

DURATION: 2 HOURS

MARKS: 100

INSTRUCTIONS: READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
ANSWER **ANY FOUR** QUESTIONS
EACH QUESTION **CARRIES 25 MARKS**
BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER
WRITE NEATLY AND CLEARLY

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

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QUESTION ONE

1. What is the main purpose of food additives local assessments? [3 Marks]
 2. Define the following terms/acronyms. [15 Marks]
 - i) Direct food additives
 - ii) Indirect food additives
 - iii) Functional Foods
 - iv) LOEL
 - v) NOAEL
 3. Define the ADI value and provide its measuring unit? [2 Marks]
 4. How is the ADI value calculated when the NOAEL is derived from animal studies and when it is derived from human data? [5 Marks]
- [25 Total Marks]**

QUESTION TWO

1. Briefly discuss three (3) of the major categories of food additives listed below taking into account the different types of additives under each category, their functions and examples of foods in which they are used: [15 Marks]
 - i) Preservatives,
 - ii) Nutritional additives
 - iii) Flavouring agents,
 - iv) Colouring agents (E100–E180 and INS 100–182):
 - v) Texturizing agents
 - vi) Miscellaneous additives.
 2. The responsibility to develop safe foods has been given to the food processing industry. Describe the steps taken by some States/Countries to approve a new food additive. [10 Marks]
- [25 Total Marks]**

QUESTION THREE

1. Briefly discuss your understanding of “variation in food additives intake”? [5 Marks]
 2. Discuss the direct effects of food additives. [4 Marks]
 3. The major aim of food intake assessments is to protect consumer health and to assist in developing food additive regulations. What are the three major goals of Food additive intake assessments? [6 Marks]
 4. It is not easy to draw up guidelines for the action’s government agencies should undertake to form the basis of reassuring information about the safety of food additives. It is equally difficult to decide what information should be made available to consumers. What steps should government agencies take to reassure consumers on the safety of food additives? [10 Marks]
- (25 TOTAL MARKS)**

QUESTION FOUR

1. Discuss how food ingredients are listed on a product label. [10 Marks]
 2. Below are the two types of the Two-phase method of estimating dietary intakes of food additives. Select one of them and discuss your understanding of the method you selected. [15 Marks]
 - i) Assumption of Maximum Permitted Levels
 - ii) Market Basket Method
- [25 Total Marks]**

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QUESTION FIVE

1. What are the basic components of a risk assessment? [5 Marks]
 2. Discuss two of the basic components of a risk assessment in relation to food additives. [20 Marks]
- [25 Total Marks]**