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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME : FOOD SCIENCE NUTRITION AND TECHNOLOGY

COURSE CODE : FSNT 402

TITLE OF PAPER : FOOD SAFETY AND PUBLIC HEALTH

TIME ALLOWED : TWO (2) HOURS

INSTRUCTIONS : ANSWER ONLY THREE QUESTIONS
: QUESTION ONE IS COMPULSORY

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QUESTION 1

Most of the foodborne illnesses that occur are preventable if food safety and quality standards are adhered to.

- a. Explain the differences in the bacterial toxins and mycotoxins? [6]
- b. Explain the possible routes of Salmonella species in the transmission of foodborne diseases (show appropriate examples). [10]
- c. Discuss the control strategies you would employ in the prevention of salmonella foodborne illness. [8]
- d. Discuss the health implication and major foodborne risks associated with street vending of food in the third world countries particularly in Swaziland? [10]
- e. Factory 'A' is canning garden peas and factory 'B' is canning pineapples. Which factory requires a "botulinum cook" and why? [6]

[Total marks 40]

QUESTION 2

- a. How do acidity and temperature influence microbial load on food? Your answer should be supported by good examples. [10]
- b. What importance does cleaning and disinfection have on food safety? [5]
- c. You are not likely to find bacteria and molds growing or spoiling the same type of food; why is that so? [5]
- d. Describe the three (3) stages of symptoms that are likely to be displayed by E.coli 0157:H7 infection. [10]

[Total Marks 30]

QUESTION 3

- a. Describe the basic stages and sequences of the cleaning process. [10]
- b. How do cleaning agents or sanitizers assist the cleaning process? [5]
- c. The physical environment in food premises has an important contribution to the quality of the final food product. Explain this statement. [15]

[Total Marks 30]

QUESTION 4

- a. In high acidic foods, such as fruit juices, we do not expect to find bacteria but such foods will still undergo spoilage. Why is that so? [4]
- b. Which two (2) strains of bacteria are likely to cause foodborne illness in sea foods and why? [4]
- c. Give two (2) molds and/or yeasts species that are likely to grow and spoil salad dressing [2]
- d. World Health Organization (WHO) gives five (5) keys to food borne diseases prevention. Explain how these prevention keys ensure food safety. [10]
- e. You observe mold growths on the surface of cheese, is it advisable to remove the mold growths by cutting; give reasons for your answer. [3]
- f. Give at least two molds and/or yeasts species that likely to grow and spoil dairy products such as cheese. [2]
- g. Which foods are likely to transmit *Listeria monocytogenes* and what are symptoms associated with this infection? [5]

[Total marks 30]