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**2<sup>nd</sup> SEM. 2016/17**

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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME : FOOD SCIENCE, NUTRITION AND TECHNOLOGY YEAR III**

**COURSE CODE : FSNT 304**

**TITLE OF PAPER : FOOD QUALITY ASSURANCE AND CONTROL**

**TIME ALLOWED : TWO (2) HOURS**

**INSTRUCTIONS : ANSWER QUESTION ONE (1) AND ANY OTHER TWO (2) QUESTIONS.**

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**QUESTION 1 (COMPULSORY)**

- a) Draw the Cause and effect diagram and explain its meaning in food quality. (10 Marks)
- b) Explain the four (4) quality assurance steps within the PDCA model. (8 Marks)
- c) Discuss the following elements of ISO 9001:-
  - i. Process control
  - ii. Inspection and testing
  - iii. Control of non-conforming quality products
  - iv. Internal quality audits
- d) What is traceability in food processing? (20 Marks)

(2 Marks)

[TOTAL MARKS = 40]

**QUESTION 2**

- a) Discuss the GMP conditions under the following:-
  - i. Personnel
  - ii. Plant and Grounds
  - iii. Sanitary facilities and controls
- b) Give a justification of why companies need a TQM system. (15 Marks)
- c) Discuss the history of HACCP. (5 Marks)

(10 Marks)

[TOTAL MARKS = 30]

**QUESTION 3**

- a) Explain the five (5) principles of ISO 14000 essentials. (15 Marks)
- b) Discuss the first and the fifth principle of HACCP giving examples in each case. (15 Marks)

[TOTAL MARKS = 30]

**QUESTION 4**

- a) Discuss the role of the following in relation to food standards: -  
    i. FDA (5 Marks)  
    ii. USDA (5 Marks)
- b) Discuss in detail how ISO 22000 differ from ISO 9001. (10 Marks)
- c) Justify the importance of PRPs and give 4 examples of PRPs. (5 Marks)
- d) Explain one (1) intrinsic factor of food quality, supporting your answer using examples. (5 Marks)

**[TOTAL MARKS = 30]**