

2<sup>nd</sup> SEM. 2018/19

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## UNIVERSITY OF ESWATINI

## RE-SIT / SUPPLEMENTARY EXAMINATION PAPER

**PROGRAMME** : BACHELOR OF SCIENCE IN FOOD  
SCIENCE, NUTRITION AND  
TECHNOLOGY YEAR IV

**COURSE CODE** : FNS402

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

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

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

DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN  
GRANTED BY THE CHIEF INVIGILATOR

**QUESTION 1 (COMPULSORY)**

- (a) Explain the importance of a quality of design (quality by design).  
(5 Marks)
- (b) Discuss the three intrinsic attributes that affect food quality.  
(15 Marks)
- (c) Discuss the functions of a QA programme.  
(6 Marks)
- (d) Discuss the GMP conditions under 'Sanitary facilities and controls'.  
(5 Marks)
- (e) Discuss Codex Alimentarius and its application to foods.  
(9 Marks)

**[TOTAL MARKS = 40]****QUESTION 2**

- (a) Give a justification of why companies need a SSOPs system.  
(5 Marks)
- (b) Discuss the first principle of HACCP.  
(5 Marks)
- (c) Justify the importance of PRPs and give 4 examples of PRPs.  
(5 Marks)
- (d) Explain the five principles of ISO 14000 essentials.  
(15 Marks)

**[TOTAL MARKS = 30]****QUESTION 3**

- a) Discuss in detail how ISO 22000:2005 differ from ISO 9001.  
(10 Marks)
- b) Discuss the GMP conditions under 'Personnel'.  
(5 Marks)
- c) Explain the five principles of ISO 14000 essentials.  
(15 Marks)

**[TOTAL MARKS = 30]**

QUESTION 4

- a) Briefly describe **five (5)** advantages of a HACCP certification. (10 Marks)
- b) Draw a flow diagram for jam making process and identify the critical control points. Explain why those are CCPs. (10 Marks)
- c) Explain gap analysis in Food Safety Management System (FSMS). (5 Marks)
- d) Describe **two (2)** benefits of ISO 9001. (5 Marks)

[TOTAL MARKS = 30]