

1ST SEM. 2019/20

UNIVERSITY OF ESWATINI



FINAL EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN FOOD SCIENCE, NUTRITION AND TECHNOLOGY

COURSE CODE: FNS303

TITLE OF PAPER: SENSORY EVALUATION

TIME ALLOWED: TWO (2) HOURS

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

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QUESTION 1 (COMPULSORY)

(a) Fill-in the correct word(s)/phrase(s). Write your answer on the answer sheet. DO NOT write the whole sentence/phrase. e.g. a) 1. Excess fat, obesity

- i. The word "rancid" can be used to describe _____ and _____ in food sensory analysis.
- ii. It is always important to remember that if sensory evaluation occurs in a quiet, _____ manner the likelihood of success is _____.
- iii. For the _____ test the panelist, after the training phase, is presented with _____ sample (either A or not-A).
- iv. When conducting a _____ test, food samples are ranked according to preferred _____.
- v. _____ of treatments to samples or products ensures each sample has _____ of receiving any treatment, and that this chance is unaffected by the treatments assigned to other samples.

(5x2=10 Marks)

(b) Differentiate between the following terms:

- i. Taste vs flavor
- ii. Recruitment vs screening of panellists
- iii. Unilateral vs bilateral tests
- iv. Affective vs preference tests
- v. Triangle vs duo-trio test

(5x2=10 Marks)

(c) Two drinks, 'A' and 'B', are presented to a panel of 30 assessors. The two samples are coded '789' and '379'. The test supervisor accepts a 5% level of significance (i.e. $P < 0.05$). He knows that drink 'A' contains more sugar than drink 'B'. Please answer the following questions:

- i. What test is being described above?
- ii. What is the purpose/uses of this test?
- iii. What are the possible serving sequences for this test?

- iv. What are the assumptions of this test?
- v. If the analyst obtained a p-value of 0.03 from the SPSS output, what conclusions would be appropriate to make about these two drinks?

(5x4=20 Marks)

[TOTAL MARKS=40]

QUESTION 2

- (a) Describe five (5) applications of descriptive testing and give examples.

(5x2=10 Marks)

- (b) What steps are involved when conducting an acceptance test? Discuss in detail.

(5x2=10 Marks)

- (c) Write short notes on the following:

- i. Assessment of market potential
- ii. Ranking test

(5x2=10 Marks)

[TOTAL MARKS=30]

QUESTION 3

- (a) As a sensory specialist in your company, you have been tasked with designing a sensory analysis test for the recently produced gluten-free chips. Describe the locations you would consider for testing your new product. Your response should also include advantages and disadvantages of conducting sensory analysis tests in these locations.

(3x5=15 Marks)

- (b) Discuss **five (5)** factors that affect odor assessment.

(5x2=10 Marks)

- (c) Describe the sensation of taste in detail i.e. how do we taste? Your response should also include the different kinds of tastes.

(5 Marks)

[TOTAL MARKS=30]

QUESTION 4

- (a) Foods have several characteristics that require evaluation by sensory methods in order to determine how they are perceived by consumers. Describe **four (4)** attributes/sensory characteristics of food.

(4x5=20 Marks)

- (b) Discuss industry applications of sensory evaluation.

(10x1=10 Marks)

[TOTAL MARKS=30]