

BOWEN UNIVERSITY, IWO, OSUN STATE
COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE
FOOD SCIENCE AND TECHNOLOGY PROGRAMME
2022/2023 SECOND SEMESTER EXAMINATION

COURSE CODE-FST 222

COURSE TITLE- BASIC ANALYTICAL METHODS IN AGRICULTURE

TIME ALLOWED: 2 HRS

INSTRUCTION: ANSWER ANY FOUR QUESTIONS

- 1(a) What are the general points to note when sampling? (7 marks)
(b) What are the various risks in selection of sampling plan? (2.5 marks)
(c) Write short note on the various steps in analysis (8 marks)
2. Write concisely on the following:
a) Probability sampling(8 marks)
b) Non probability sampling(9.5 marks)
- 3a) List various agricultural products that can be analysed. (5 marks)
b) What is the importance of colour and texture determination in agricultural products? (7.5 marks)
c) The description of colour in Munsell System is given as 4R 2.5/5.9, 6R 3.6/4.8, 3G 2.8/3.7, 6B 2.9/5.78 and 5Y 1.6/4.9. What does each of the figures mean? (5 marks)
- 4a) Highlight the importance of Food analysis? (7 marks)
b) List various standard methods of analysis (8 marks)
c) What is the importance of ash content determination in agricultural products? (2.5 marks)
- 5a) Write extensively on sample preparation prior to analysis (5 marks)
b) What are the various factors to be considered in selection of method to be used for analysis (5 marks)
c) Highlight the steps involved in the determination of moisture content in maize flour (7.5 marks)
- 6(a) Given the information below, determine
(i) Weight of ash (1 marks)
(ii) Percentage ash content(2 marks)
Weight of sample = 3g
Weight of dish after ignition= 8gms
Tare weight of dish= 6gms
- (b)The following values were obtained after analysing a sample of potato flour for moisture content.
10.42%, 10.52%, 11.2%, 10.52% and 12.05%. Determine
(i) Mean (2 marks) (ii) Standard Deviation (6marks)
(iii) Coefficient of Variation (2 marks) (iv) Is the set of data acceptable or not? (2 marks)
- (c) Why is moisture content of great economic importance to a food manufacturer? (2.5 marks)