



PAN AFRICA CHRISTIAN UNIVERSITY

END OF SEMESTER EXAMINATION FOR THE DEGREE OF

JANUARY- APRIL 2022

CAMPUS: ROYSAMBU

DEPARTMENT: BUSINESS

COURSE CODE: BCM 204

COURSE TITLE: BUSINESS STATISTICS II

EXAM DATE:

TIME:

INSTRUCTIONS

- This examination script consists of **SIX (6)** questions.
- Answer question **ONE** and ANY other **THREE** Questions.
- Read all questions carefully before attempting.
- Write your **student number** on the answer booklet provided.

Question One (compulsory) (10 marks)

The following data relate to advertising expenditure and their corresponding sales (in millions):

Advertising expenditure('000)	10	12	15	23	20
Sales('000,000)	14	17	23	25	21

- a) Determine the regression line (8 marks)
- b) Estimate the sales corresponding to advertising expenditure of shs. 30,000 (2 marks)

Question Two (10 marks)

Two computers A and B are to be marketed. A salesman who is assigned the job of finding customers for them has 60% and 40% chances, respectively of succeeding in case of computer A and B. The computers can be sold independently. Determine the probability that computer A has been sold. (10 marks)

Question Three (10 marks)

A sales clerk in a departmental store claims that 60% of the shoppers entering the store leave without make a purchase. A random sample of 50 shoppers showed that 35 of them left without buying anything. Determine if sample results are consistent with the claim of the sales clerk. Use a level of significance of 0.05 (10 marks)

Question Four (10 marks)

- a) Describe the chi square test (3 marks)
- b) State the basic conditions must be met in order for chi-square analysis to be applied (7 marks)

Question Five (10 marks)

Explain the difference between following terms using suitable examples :

- a) One tailed and two tailed test (3 marks)
- b) Null and Alternative Hypothesis (2 marks)
- c) Type I and type II errors (3 marks)
- d) Acceptance and rejection regions. (2 marks)

Question Six**(10 marks)**

a) The table below shows marks scored by 8 students in a mathematics and English test

Students	1	2	3	4	5	6	7	8
Marks scored in Mathematics	31	36	44	28	56	78	36	96
Marks scored in English	36	46	66	46	36	26	46	76

Required

- i. Determine the rank co-efficient of correlation. (7 marks)
- ii. Interpret the results (3 Marks)