

**SPECIFY TYPE OF
EXAMINATION**

FIRST ATTEMPT
FIRST RESIT
SECOND RESIT
RE-TAKE



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BUSINESS AND ECONOMICS
UNIVERSITY EXAMINATION FOR THE DEGREE OF INTERNATIONAL TOURISM
MANAGEMENT
2ND YEAR 2ND SEMESTER 2021/2022 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: BTB 1204

COURSE TITLE: TOURISM STATISTICS AND ANALYSIS

DATE:

TIME:

TIME:

Instructions:

Instructions

- 1. Answer Question One (compulsory) and any other 2 questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination**



QUESTION ONE

- a) Outline five areas in tourism business where statistics can be applied (5 marks)
- b) Highlight five ways you can apply timeseries analysis in tourism? (5 marks)
- c) Explain the five data values relevant in the generation of a box plot (5 marks)
- d) As a tourism destination manager, highlight five guidelines you would adopt in choosing an appropriate forecasting technique (5 marks)
- e) A tour firm business sale of a cultural package for the 40 days is as shown in the data set below:

151	148	170	146	182	197	156	158
160	160	147	159	153	175	193	166
153	175	150	184	142	160	175	175
194	154	178	185	143	159	164	170
160	147	159	153	175	193	166	175

Required:

Using a class interval of ten (10) with the lowest class limit for the data being 140 and the highest-class limit for the data being 100 i.e., 140 – 149, 150 – 159, 160 – 169and so on; compute:

- i) Mode and median class (2 marks)
- ii) Relative frequency of each of the class you have generated (5 marks)
- iii) 30th, 50th and 80th percentile (3 marks)



QUESTION TWO

The following information is available for KQ flight costs from Nairobi to London for different classes

Flight Class	Weekday Cost (\$)	Weekend Cost (\$)
Economy class	249	259
Business class	279	289
First class	319	339

- a) Write a 3 x 2 matrix that represent the cost of each flight. (5 marks)
- b) What does the rows and columns represent in a) above? (5 marks)
- c) Write a 2 x 3 matrix that represent the cost of each flight. (5 marks)
- d) What does the rows and columns represent? (5 marks)

QUESTION THREE

The production cost, in Kenya shillings, of producing x packages in a tour firm is given by

$$C(x) = 4000 - 32x + 0.08x^2 + 0.00006x^3$$

and the demand function for the packages is given by

$$P(x) = 250 + 0.02x + 0.01x^2$$

Required

- a) When $x = 150$ and $x = 500$, what is the
 - i) Marginal cost? (5 marks)
 - ii) Marginal revenue? (5 marks)
 - iii) Marginal profit? (5 marks)
- b) What do these numbers tell you about the cost, revenue and profit? (5 marks)



Registration No.....

QUESTION FOUR

- a) Explain the importance of forecasting in tourism business management and describe four qualitative forecasting methods that tourism destination manager can adopt (12 marks)
- b) Explain four guidelines that would guide the tourism destination manager in choosing an appropriate forecasting technique (8 marks)

QUESTION FIVE (20 MARKS)

- a) Define the term sample as used in statistics and describe four probabilistic and four non-probabilistic sampling methods that can be used in the sampling process (10 marks).
- b) Explain any five inferential statistic techniques that may be used to for analysis in the tourism industry (10 marks)