



**UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL**

**FINAL EXAMINATION
MARCH 2026 SEMESTER**

COURSE CODE	: EFB10503
COURSE NAME	: STATISTICS FOR TOURISM
PROGRAMME NAME	: BACHELOR OF SCIENCE (HONOURS) IN ANALYTICAL ECONOMICS
DATE	: 20 JUNE 2026
TIME	: 9.00AM – 12.00PM
DURATION	: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please **CAREFULLY** read the instructions given on this question paper.
 2. This question paper has information printed on both sides of the paper.
 3. This examination comprises of only **ONE (1)** section.
 4. You are required to answer only **FOUR (4)** questions
 5. Please write your answer in the answer booklet provided.
 6. All questions must be answered in **English** (any other language is not allowed).
 7. This question paper must not be removed from the examination hall.
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THERE ARE THREE (6) PAGES OF QUESTIONS, INCLUDING THIS PAGE.

SECTION A (Total: 100 marks)

Answer FOUR (4) questions.

Please use the answer booklet provided.

Question 1

Please answer the following questions.

- (a) A hotel in Malaysia is adopting a data-driven system to improve its operations and overall service quality. The management plans to use various types of information collected from guests and daily operations to support decision-making and performance evaluation. Based on this situation, discuss the key components of a hospitality database and explain how each type of information contributes to effective hotel management.

(4 marks)

- (b) A tourist plans to visit one of three attractions: a museum, an art gallery, or a national park. The probability that the tourist visits the museum is 0.45, while the probability that the tourist visits the art gallery is 0.35. If two tourists are selected independently, calculate the probability that:

- i. Both tourists visit the national park.

(4 marks)

- ii. One tourist visits the art gallery and the other visits the national park.

(3 marks)

- iii. Both tourists visit different attractions.

(6 marks)

- (c) Conjoint Analysis is a statistical technique used in market research to understand how consumers value different attributes that make up a product or service. The core idea is that any product can be broken down into a set of attributes, and conjoint analysis helps determine the relative importance of these attributes to consumers. Explain two advantages and two limitations of conjoint analysis commonly used in marketing research.

(8 marks)

Question 2

Please answer the following questions.

- (a) In tourism research, data is often analysed using different statistical techniques to understand tourist behaviour and satisfaction. One of these techniques is multivariate analysis, which involves examining more than one variable at the same time. Based on this statement, state the meaning of multivariate analysis in tourism research.
(5 marks)
- (b) Grand Horizon Hotel has 250 available rooms. During the last holiday weekend, the hotel sold 175 rooms and generated a total room revenue of RM31,500.
- Calculate the Occupancy Rate, Average Daily Rate (ADR), and Revenue per Available Room (RevPAR).
(6 marks)
 - A competitor hotel recorded an occupancy rate of 80% with an ADR of RM160. Calculate its RevPAR and compare it with Grand Horizon Hotel. Which hotel performed better?
(4 marks)
 - Suggest one strategy for Grand Horizon Hotel to improve its RevPAR without increasing the number of rooms.
(2 marks)
- (c) In tourism statistics, data is often presented using tables and charts to help users understand information quickly and clearly. However, poor design can make data difficult to interpret. Based on this situation, explain two best practices in constructing tables and two best practices in presenting data using charts in tourism reports.
(8 marks)

Question 3

Please answer the following questions.

- (a) Explain the concept of Trial-Repeat Modelling and discuss how it helps businesses evaluate the success of a new product in the market.

(5 marks)

- (b) A mini supermarket manager at Fresh Mart recorded the number of customers visiting the store over 9 consecutive days as shown below:

14, 16, 18, 16, 20, 22, 16, 24, 26

- i. State the median and mode of the data set.

(2 marks)

- ii. Determine the interquartile range (IQR).

(4 marks)

- iii. Calculate the mean, variance, and standard deviation of the data.

(6 marks)

- (c) A hotel chain intends to improve its operational performance by applying a benchmarking process. Identify the stages involved in the benchmarking process and discuss how each stage contributes to continuous improvement in hotel operations.

(8 marks)

Question 4

Please answer the following questions.

- (a) A well-known island destination in Malaysia has shifted from having very few visitors to becoming a busy tourist hotspot over the years. Recently, however, growth has started to slow and some issues such as congestion and environmental pressure have been reported. Based on this situation, state the main stages of cycle of economic development in tourism.

(5 marks)

- (b) A hospital laboratory monitors the performance of a blood testing machine by measuring the cholesterol level (mmol/L) of 4 randomly selected patients every day over a 4-day period. The data collected are shown below:

Day	Sample 1	Sample 2	Sample 3	Sample 4
1	5.1	5.3	5.2	5.4
2	4.9	5	5.1	4.8
3	5.2	5.1	5.3	5.2
4	5	4.9	5.1	5

- i. Calculate the sample mean and sample range for each day.
- (4 marks)
- ii. Compute the overall mean and average range.
- (4 marks)
- iii. Given $A_2=0.729$, construct the Upper Control Limit (UCL) and Lower Control Limit (LCL) for the X-bar control chart.
- (2 marks)
- iv. Based on your results, determine whether the process is in statistical control. Provide a brief justification.
- (2 marks)

- (c) Structured observational study uses predetermined guidelines or categories to record behaviours, while unstructured observational study allows behaviours to be recorded freely without fixed categories. Briefly explain two characteristics of a structured observational study and two characteristics of an unstructured observational study.

(8 marks)

Question 5

Please answer the following questions.

- (a) State the characteristics of qualitative and quantitative data used in tourism studies.

(5 marks)

- (b) The Malaysia Tourism Board conducted a survey of 340 visitors to study travel patterns within Malaysia, classified by visitor type and state visited. The results are summarized in the table below:

Visitor Type	Terengganu	Penang	Sabah	Total
Local	50	60	40	150
Foreigner	90	50	50	190
Total	140	110	90	340

- i. Find the probability that a randomly selected visitor visited Sabah.

(2 marks)

- ii. Find the probability that a randomly selected visitor is a foreigner and has visited Penang.

(2 marks)

- iii. Find the probability that the visitor visited either Penang or Sabah.

(4 marks)

- iv. Find the probability that a randomly selected visitor is a local visitor or has visited Terengganu.

(4 marks)

- (c) The Cycle of Innovation refers to the continuous process of creating, implementing, and diffusing new ideas, products, or services in the tourism industry. List the five stages in the cycle of innovation within the tourism industry.

(8 marks)

END OF EXAMINATION PAPER