



**UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL**

**FINAL EXAMINATION
MARCH 2025 SEMESTER**

COURSE CODE	: EFB10503
COURSE NAME	: STATISTICS FOR TOURISM
PROGRAMME NAME	: BACHELOR IN TOURISM PLANNING AND DEVELOPMENT (HONOURS)
DATE	: 26 JUNE 2025
TIME	: 2.00 PM – 5.00 PM
DURATION	: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please **CAREFULLY** read the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of **FOUR (4)** questions.
4. Answer **ALL** questions.
5. Please write your answers on 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.

THERE ARE FIVE (5) PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

Total: 100 marks

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

- (a) You are a market analyst at a regional tourism board tasked with evaluating international tourism trends and domestic travel behavior after the COVID-19 pandemic. The board is planning a strategy to rebuild inbound tourism and improve domestic tourism services. Your team is using United Nations World Tourism Organization (UNWTO) international tourism indicators and Domestic Tourism Survey (DTS) data from Malaysia.
- Describe two key differences between quantitative and qualitative market research. Provide one example of how each type could be used to support a tourism recovery strategy.
(4 marks)
 - Referencing the market research process, explain the steps your tourism board should take before launching a post-COVID tourist satisfaction survey.
(5 marks)
 - The Domestic Tourism Survey (DTS) revealed a drop in overnight trips and a rise in day-trips. Discuss two possible factors behind this change and how it should influence tourism product development.
(4 marks)
 - Identify one major problem that often arises in the use of market research by decision-makers in tourism. Suggest a way to avoid it.
(2 marks)
- (b) Malaysia's inbound tourism fell by 85% in 2020, but outbound travel also declined significantly. Explain the difference between inbound and outbound tourism, and how each is recorded in tourism statistics.
(4 marks)
- (c) You are analyzing spatial data from a national census to identify potential areas for domestic tourism promotion. Name and explain two spatial analysis techniques that could help identify underserved tourism areas.

(4 marks)

- (d) What is the main purpose of a trip in tourism statistics? Why is it important to classify trips this way in both domestic and international tourism reporting?

(2 marks)

Question 2

- (a) Define and differentiate between the following. Use one example for each comparison:

- i. Tourist vs. Excursionist.
- ii. Inbound tourism vs. Outbound tourism.

(4 marks)

- (b) The UNWTO classifies the main purposes of travel into personal and business categories. List any four (4) personal purposes and explain why it is important for countries to collect this data.

(4 marks)

- (c) Suppose a sample survey of 500 outbound Malaysian travelers found that 270 traveled for holidays, 130 visited friends and relatives, 60 traveled for business and 40 for medical or education. Construct a pie chart showing the proportion of outbound travel purposes (Include title, label percentages, and correct proportioning).

(5 marks)

- (d) Define the term "Statistical Quality Control (SQC)" and describe two tools used in monitoring service quality in tourism.

(4 marks)

- (e) A hotel chain is implementing Statistical Quality Control (SQC) to improve guest satisfaction at check-in counters. Guests are surveyed, and feedback is rated as either "satisfactory" or "unsatisfactory." The probability that a randomly selected guest gives a "satisfactory" rating is 0.8. If 3 guests are surveyed:

- i. What is the probability that all 3 are satisfied?
- ii. What is the probability that exactly one is satisfied?

(4 marks)

- (f) A tour operator wants to form a team of 3 guides out of 6 available staff.

- i. How many different combinations of tour guide teams can be formed?
- ii. If staff A must be included in every team, how many combinations are possible?

(4 marks)

Question 3

- (a) The tourism board of Melaka is concerned about the stagnation in tourist arrivals for two of its key attractions: the Melaka River Cruise and the Historical Walk Trail. It commissions a study using the Tourism Product Life Cycle (PLC) framework and Trial-Repeat Modelling to evaluate these attractions. The Melaka River Cruise had 190,000 visitors in total last year. Of these, 65% were first-time (trial) visitors.
- i. Describe the four stages of the Tourism Product Life Cycle (PLC), and provide one example for each stage using real or hypothetical tourism attractions.
(4 marks)
 - ii. Calculate the number of trial and repeat visitors.
(2 marks)
 - iii. Calculate the Trial-Repeat Ratio (TRR). Interpret what the ratio means.
(3 marks)
 - iii. Based on your TRR interpretation above, propose two short- or medium-term strategies to increase the repeat visitor rate for Melaka River Cruise.
(4 marks)
- (b) Explain the five phases of the Innovation Cycle in Tourism and illustrate each using Smart Hotels as an example.
(5 marks)
- (c) Identify and explain the four phases in Cycle of Economic Development in Tourism with one suitable example of a Malaysian or ASEAN destination in each phase.
(4 marks)
- (d) Discuss two policy interventions a tourism authority can implement to support revitalization during the decline phase.
(3 marks)

Question 4

- (a) You are a data analyst at the Malaysia Tourism Board. A regression analysis was performed using SPSS to examine how average daily room rate (X) affects monthly tourist arrivals (Y) at major hotels in Langkawi. The following SPSS output was generated:

Model Summary

R	R square	Adjusted R Square	Std. Error of the Estimate
0.762	0.581	0.566	1214.875

ANOVA

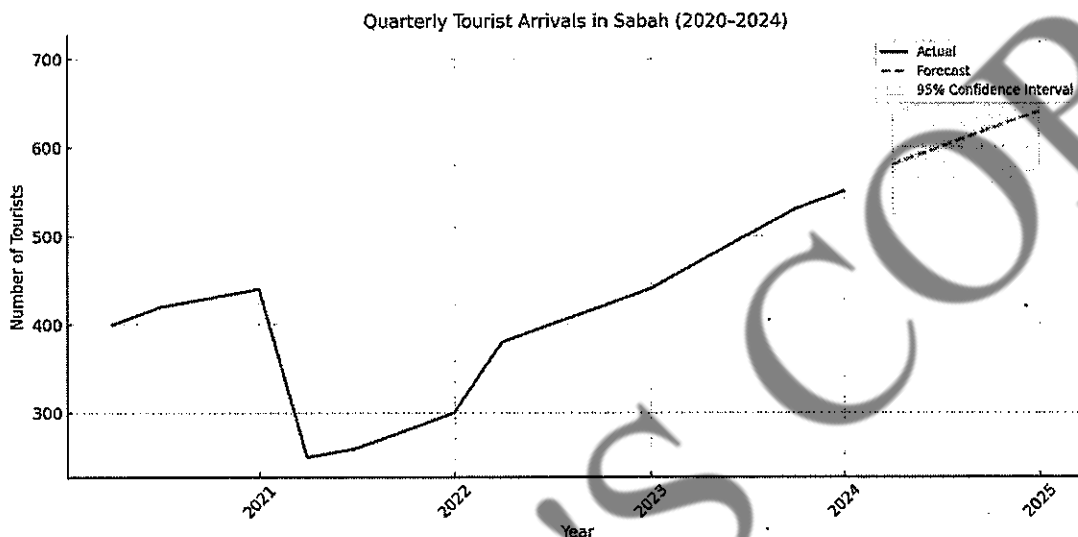
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1956.65	1	1956.65	1.247	0.001
Residual	14124.33	9	1569.37		
Total	33691.12	10			

Coefficients

Model	Unstandardized Coefficients (B)	Std. Error	t	Sig.
(Constant)	3245.66	894.23	3.63	0.0006
Room Rate	14.82	4.07	3.64	0.0003

- i. Write the regression equation based on the SPSS output.
(2 marks)
- ii. Interpret the coefficient for Room Rate.
(2 marks)
- iii. How well does the model explain variation in tourist arrivals? Use R^2 to support your answer.
(2 marks)
- iv. Is regression statistically significant? Justify your answer using the ANOVA table.
(2 marks)
- v. If the average room rate is RM250, estimate the monthly tourist arrival.
(3 marks)
- vi. Explain one limitation of using this model for future forecasting.
(2 marks)

- (b) The chart below shows quarterly tourist arrivals in Sabah from 2020 to 2023. The data was used to forecast tourist numbers for 2024 using Winters' Exponential Smoothing in SPSS. The chart includes the forecast line and the 95% confidence interval.



- i. Identify and explain the two components of the time series model present in the chart. (2 marks)
- ii. What does the widening confidence interval (CI) in the forecast line suggest for predictions further into the future? (2 marks)
- iii. Based on the chart, during which quarter and year was the lowest tourist arrival recorded? What event likely caused this? (2 marks)
- iv. If the forecasted value for Q2 2024 is 980,000 tourists and the seasonal index for Q2 is 1.08, estimate the de-seasonalized trend value. (2 marks)
- v. Explain one benefit of using Winters' method over simple moving average in tourism forecasting. (2 marks)
- vi. Suggest one policy decision that tourism authorities can make based on this chart's forecast. (2 marks)

END OF EXAMINATION PAPER