# S6 Tourism and Hospitality Practice Paper I Tourism demand and market structure, hotel revenue management, aviation and cruise, food cost control, heritage carrying capacity and sustainable policy

S6 Tourism and Hospitality I Time allowed: 75 minutes I Total: 100 marks I 24 questions

## Part A Tourism demand and market structure

### Question 1 (20 marks)

1. Visitor arrivals to a destination rose from 28.0 million in 2023 to 33.6 million in 2024. Find the rate of growth. (5 marks)

> **Answer:** Growth rate = (33.6 - 28.0) / 28.0 x 100 = 20.0%, showing an expanding market; a check on whether growth comes from overnight or same-day visitors is still needed.

2. Total visitor spending in that year was HKD 134.4 billion. Find the per-capita spending. (5 marks)

> **Answer:** Per-capita spending = 134.4 billion / 33.6 million = HKD 4,000, since per-capita spending shows market quality better than arrival numbers alone.

3. The top three source markets together supplied 11.76 million arrivals. Find the concentration ratio and state one risk. (5 marks)

> **Answer:** Concentration ratio = 11.76 / 33.6 x 100 = 35.0%; the risk is over-dependence on a few source markets, so a downturn in one market can sharply cut total arrivals.

4. Overnight visitors are 45% of arrivals, staying 3.2 nights on average with 1.8 guests per room. Find total guest nights and room nights required. (5 marks)

> **Answer:** Guest nights = 33.6 million x 0.45 x 3.2 = 48.4 million; room nights = 48.4 million / 1.8 = 26.9 million, the basis for judging whether room supply is sufficient.

## Part B Hotel revenue management

### Question 2 (20 marks)

5. A hotel with 500 rooms sold 10,500 room nights over a 30-day month. Find the occupancy rate. (5 marks)

> **Answer:** Available room nights = 500 x 30 = 15,000; occupancy = 10,500 / 15,000 x 100 = 70.0%.

6. The average daily rate (ADR) that month was HKD 1,260. Find RevPAR. (5 marks)

> **Answer:** RevPAR = ADR x occupancy = 1,260 x 0.70 = HKD 882, since RevPAR reflects both price and volume.

7. If the rate is cut to HKD 1,200 and occupancy rises to 75%, find the new RevPAR, the percentage change and whether the move helps. (5 marks)

> **Answer:** New RevPAR = 1,200 x 0.75 = HKD 900; change = (900 - 882) / 882 x 100 = +2.0%. RevPAR rises, so the cut pays if marginal cost stays below the extra revenue.

8. Room revenue that month was HKD 13.23 million with a GOP margin of 35%. Find the GOP amount. (5 marks)

> **Answer:** Check revenue = 10,500 x 1,260 = HKD 13.23 million; GOP = 13.23 million x 35% = HKD 4.6305 million, before management fees and depreciation.

## Part C Aviation and cruise operations

### Question 3 (15 marks)

9. A route runs 4 daily flights with 240 seats each; in a 30-day month it carried 23,040 passengers. Find the load factor. (4 marks)

> **Answer:** Seats available = 240 x 4 x 30 = 28,800; load factor = 23,040 / 28,800 x 100 = 80.0%.

10. A flight leaves Hong Kong (UTC+8) at 10:00 and flies 12 hours 30 minutes to Vancouver (UTC-8 in winter). Find the local arrival time. (4 marks)

> **Answer:** Time difference = 8 - (-8) = 16 hours; Hong Kong arrival 22:30; local time = 22:30 - 16 hours = 06:30 the same day.

11. A cruise ship has 3,600 berths, each voyage lasts 7 nights with 1 night between voyages, operates 365 days a year at 90% occupancy. Find voyages per year and annual passengers. (4 marks)

> **Answer:** Each voyage needs 8 days; voyages = 365 / 8 = 45 (the 5 remaining days cannot make another voyage); passengers per voyage = 3,600 x 90% = 3,240; annual passengers = 45 x 3,240 = 145,800.

12. Each cruise passenger spends HKD 1,200 in port, of which 30% leaks to imports. Find the annual net local benefit. (3 marks)

> **Answer:** Net benefit per passenger = 1,200 x 70% = HKD 840; annually 145,800 x 840 = HKD 122.47 million, so a higher leakage ratio leaves less benefit locally.

## Part D Food and beverage cost control

### Question 4 (15 marks)

13. A dish sells at HKD 288 with a food cost of HKD 92.16. Find the food cost percentage. (4 marks)

> **Answer:** Food cost percentage = 92.16 / 288 x 100 = 32.0%, leaving room for gross profit.

14. If the target food cost percentage is 30%, find the new selling price with the same food cost. (4 marks)

> **Answer:** New price = 92.16 / 0.30 = HKD 307.20, though demand sensitivity must be considered.

15. The outlet serves 4,200 covers a month at HKD 288 each, with 32% food, 38% labour and 22% other costs. Find the monthly operating profit. (4 marks)

> **Answer:** Monthly revenue = 4,200 x 288 = HKD 1.2096 million; total costs 92% leave an 8% margin; profit = 1.2096 million x 8% = HKD 96,768.

16. If the food cost rises 15% with the price unchanged, find the new cost percentage and profit margin. (3 marks)

> **Answer:** New food cost = 92.16 x 1.15 = HKD 105.98; new cost percentage = 36.8%, cutting the margin from 8% to 3.2%, so repricing, reformulating or switching suppliers is needed.

## Part E Heritage tourism and carrying capacity

### Question 5 (15 marks)

17. A village has a daily social carrying capacity of 2,400 visits but receives 3,000 a day in peak season. Find the overload percentage. (4 marks)

> **Answer:** Overload = (3,000 - 2,400) / 2,400 x 100 = 25.0%, and persistent overload erodes residents' quality of life.

18. Each visit generates 1.8 kg of waste and 40% is recycled. Find the daily waste sent to landfill in tonnes. (4 marks)

> **Answer:** Daily waste = 3,000 x 1.8 = 5,400 kg; after 40% recycling, 5,400 x 0.6 = 3,240 kg = 3.24 tonnes go to landfill.

19. The village has 1,500 residents and receives 3,000 visits a day in peak season. Find the visitor-to-resident ratio and state one effect. (4 marks)

> **Answer:** Ratio = 3,000 / 1,500 = 2.0 to 1; effects include shops switching to tourist trade, rising rents and disruption of daily life.

20. Entry is HKD 80 with 3,000 visitors a day over 330 days, and 25% of revenue goes to a conservation fund. Find the annual fund amount. (3 marks)

> **Answer:** Annual revenue = 3,000 x 80 x 330 = HKD 79.2 million; fund = 79.2 million x 25% = HKD 19.8 million.

## Part F Economic contribution and sustainable policy

### Question 6 (15 marks)

21. Tourism value added is HKD 112 billion against a GDP of HKD 2,800 billion. Find its share of GDP. (4 marks)

> **Answer:** Share = 112 / 2,800 x 100 = 4.0%; value added counts only locally created value, avoiding double counting of total spending.

22. The tourism multiplier is 1.8 on direct receipts of HKD 112 billion. Find the total economic impact. (4 marks)

> **Answer:** Total impact = 112 billion x 1.8 = HKD 201.6 billion, the multiplier depending on local supply chains and leakage.

23. Tourism employs 260,000 people out of total employment of 3.8 million. Find tourism's share of employment. (4 marks)

> **Answer:** Share = 26 / 380 x 100 = 6.8%; the share exceeds the value-added share because tourism is labour-intensive.

24. Each visitor emits 0.42 tonnes of CO2 equivalent, with 33.6 million arrivals a year. Find total emissions and the level after a 15% cut. (3 marks)

> **Answer:** Total emissions = 0.42 x 3,360 = 14.112 million tonnes; a 15% cut removes 2.1168 million tonnes, leaving 11.9952 million tonnes.

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