S4 Tourism and Hospitality Practice Paper 1 | Flight times, hotel revenue, tour costing, market share, food cost, park capacity

Senior Secondary Tourism and Hospitality Studies

S4 Tourism and Hospitality practice paper 1 with full worked solutions: flight times, hotel occupancy and RevPAR, tour costing, market share, food cost.

1. Flight times and time zones (16 marks)

A flight leaves Hong Kong International Airport for Tokyo Narita at 10:20 Hong Kong time and the flying time is 4 hours 15 minutes. Hong Kong uses UTC+8 and Tokyo uses UTC+9, so Tokyo is 1 hour ahead. The return flight leaves Tokyo at 6:40 pm local time and the flying time is 4 hours 5 minutes. The two airports are 2,890 km apart. The travel agent asks passengers to check in 2 hours before departure, and immigration and baggage claim at Tokyo take 45 minutes after landing.

#	Question	Answer and marking notes
1	(a) At what local time does the flight arrive in Tokyo?	Answer: 10:20 plus 4 hours 15 minutes gives 14:35 Hong Kong time; Tokyo is 1 hour ahead, so the local time is 15:35.
2	(b) At what Hong Kong time does the return flight arrive in Hong Kong?	Answer: 18:40 Tokyo time plus 4 hours 5 minutes gives 22:45; converted to Hong Kong time, 22:45 minus 1 hour = 21:45.
3	(c) How long does it take from arriving at the Hong Kong airport to reaching the Tokyo hotel after immigration and baggage claim? Give the answer in hours and minutes.	Answer: 2 hours check-in plus 4 hours 15 minutes flying plus 45 minutes on arrival = exactly 7 hours, that is 420 minutes.
4	(d) Calculate the average flying speed of the outbound flight in km/h, correct to the nearest whole number.	Answer: 4 hours 15 minutes = 4.25 hours; average speed = 2,890 / 4.25 = 680 km/h.

2. Hotel occupancy and revenue per available room (16 marks)

A hotel has 400 rooms and the month has 30 days. In the month 8,400 room nights are sold and total room revenue is HK$6,720,000. The variable cost of an occupied room is HK$420 per night and fixed costs for the month are HK$3,150,000.

#	Question	Answer and marking notes
5	(a) Calculate the number of available room nights and the occupancy rate for the month.	Answer: available room nights = 400 x 30 = 12,000; occupancy = 8,400 / 12,000 x 100 = 70.0 per cent.
6	(b) Calculate the average daily rate (ADR) and the revenue per available room (RevPAR).	Answer: ADR = 6,720,000 / 8,400 = HK$800; RevPAR = 6,720,000 / 12,000 = HK$560, which also equals 800 x 70 per cent.
7	(c) If next month targets an occupancy of 82 per cent with the same number of rooms, how many room nights must be sold, and how many more than this month?	Answer: target room nights = 12,000 x 82 per cent = 9,840; an increase of 9,840 - 8,400 = 1,440 room nights.
8	(d) Calculate the room department profit and profit margin for the month.	Answer: variable cost = 420 x 8,400 = 3,528,000; total cost = 3,528,000 + 3,150,000 = 6,678,000; profit = 6,720,000 - 6,678,000 = HK$42,000; margin = 42,000 / 6,720,000 x 100 = 0.6 per cent.

3. Tour costing and break-even (18 marks)

A travel agent runs a five-day Bangkok tour for 40 people at HK$8,800 per person. The cost per person is HK$4,200 for air tickets, HK$1,600 for hotel, HK$900 for meals and HK$500 for local transport. Tour leader pay, guide fees and insurance total HK$24,000, a fixed cost that does not change with the number of passengers.

#	Question	Answer and marking notes
9	(a) Calculate the variable cost per person, the total cost of the tour, the total profit and the profit per person.	Answer: variable cost per person = 4,200 + 1,600 + 900 + 500 = HK$7,200; total cost = 7,200 x 40 + 24,000 = 312,000; revenue = 8,800 x 40 = 352,000; profit = 40,000, that is HK$1,000 per person.
10	(b) Calculate the contribution margin per person and the break-even number of passengers for the tour.	Answer: contribution = 8,800 - 7,200 = HK$1,600; break-even = 24,000 / 1,600 = 15 passengers.
11	(c) If the tour takes only 30 passengers at the same fare, what is the total profit?	Answer: total contribution = 1,600 x 30 = 48,000; profit = 48,000 - 24,000 = HK$24,000.
12	(d) If the fare is discounted by 5 per cent to attract passengers, what is the new break-even number of passengers?	Answer: new fare = 8,800 x 95 per cent = 8,360; contribution = 8,360 - 7,200 = 1,160; 24,000 / 1,160 = 20.69, so at least 21 passengers are needed.

4. Source market shares and growth rates (18 marks)

In one year Hong Kong receives 8,000 thousand visitor arrivals: 4,600 thousand from the mainland, 1,800 thousand from short-haul markets, 1,200 thousand from long-haul markets and 400 thousand from other markets. Last year total arrivals were 7,200 thousand, of which 4,000 thousand were mainland and 1,250 thousand long-haul. Total visitor spending for the year is HK$68,000 million.

#	Question	Answer and marking notes
13	(a) Calculate the share of each of the four markets as a percentage, correct to one decimal place.	Answer: mainland 4,600 / 8,000 = 57.5 per cent; short-haul 1,800 / 8,000 = 22.5 per cent; long-haul 1,200 / 8,000 = 15.0 per cent; other 400 / 8,000 = 5.0 per cent.
14	(b) Calculate the year-on-year percentage change in total arrivals, mainland arrivals and long-haul arrivals.	Answer: total (8,000 - 7,200) / 7,200 = +11.1 per cent; mainland (4,600 - 4,000) / 4,000 = +15.0 per cent; long-haul (1,200 - 1,250) / 1,250 = -4.0 per cent, a fall of 4 per cent.
15	(c) Calculate the average spending per visitor.	Answer: spending per visitor = 68,000 million / 8,000 thousand arrivals = 68,000,000,000 / 8,000,000 = HK$8,500.
16	(d) If total arrivals rise by another 8 per cent next year with the same market structure, how many thousand mainland visitors are expected?	Answer: 8,000 x 1.08 = 8,640 thousand arrivals; mainland = 8,640 x 57.5 per cent = 4,968 thousand visits.

5. Restaurant food cost and menu pricing (16 marks)

A restaurant has monthly sales of HK$1,250,000, food cost of HK$400,000, staff cost of HK$350,000, rent of HK$180,000 and other expenses of HK$150,000. Management wants to reduce the food cost percentage to 30 per cent. The food cost of one main course is HK$48.

#	Question	Answer and marking notes
17	(a) Calculate the current food cost percentage, and how much food cost must be cut to bring it down to 30 per cent.	Answer: food cost = 400,000 / 1,250,000 x 100 = 32 per cent; the cap at 30 per cent is 1,250,000 x 30 per cent = 375,000; food cost must fall by HK$25,000.
18	(b) If the main course is priced at a 30 per cent food cost, what should the selling price be? If it is actually sold at HK$150, what is the food cost percentage?	Answer: selling price = 48 / 30 per cent = HK$160; at HK$150 the ratio is 48 / 150 x 100 = 32 per cent.
19	(c) Calculate the staff cost percentage and the rent percentage.	Answer: staff cost = 350,000 / 1,250,000 x 100 = 28 per cent; rent = 180,000 / 1,250,000 x 100 = 14.4 per cent.
20	(d) Calculate the net profit and net profit margin for the month.	Answer: total expenses = 400,000 + 350,000 + 180,000 + 150,000 = 1,080,000; net profit = 1,250,000 - 1,080,000 = HK$170,000; net margin = 13.6 per cent.

6. Theme park capacity and revenue structure (16 marks)

A theme park can admit at most 30,000 visitors a day. On one day 24,000 visitors enter, of whom 15,000 are adults and 9,000 are children. An adult ticket costs HK$480 and a child ticket costs HK$320. Average in-park spending is HK$200 per visitor.

#	Question	Answer and marking notes
21	(a) Calculate the capacity utilisation rate for that day.	Answer: utilisation = 24,000 / 30,000 x 100 = 80 per cent.
22	(b) Calculate total ticket revenue for the day and the average ticket price.	Answer: ticket revenue = 15,000 x 480 + 9,000 x 320 = 7,200,000 + 2,880,000 = HK$10,080,000; average ticket price = 10,080,000 / 24,000 = HK$420.
23	(c) Calculate total in-park spending and total revenue for the day.	Answer: in-park spending = 24,000 x 200 = HK$4,800,000; total revenue = 10,080,000 + 4,800,000 = HK$14,880,000.
24	(d) If arrivals on the same day next year rise by 8 per cent with unchanged prices, what ticket revenue is expected?	Answer: 24,000 x 1.08 = 25,920 visitors; ticket revenue = 25,920 x 420 = HK$10,886,400.