S4 Tourism and Hospitality Studies Practice Paper: Industry Structure and Hotel Revenue, Itinerary Costing, Visitor Behaviour, Service Quality, Economic Multiplier, Sustainable Tourism

S4 | Tourism and Hospitality Studies | Time: 75 minutes | Total: 100 marks | 24 questions

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Part A Industry Structure and Hotel Revenue (16 marks)

Answer all questions and show your working.

1. In a year Hong Kong recorded 46 million visitor arrivals and 45% of them stayed overnight. Find the number of overnight visitors and same-day visitors in millions. [4]

Answer: Overnight visitors = 46 x 45% = 20.7 million; same-day visitors = 46 - 20.7 = 25.3 million.

2. A hotel has 1,200 rooms. On one night the occupancy rate is 85% and the average daily rate (ADR) is $1,200. Find the room nights sold and the total room revenue. [4]

Answer: Room nights = 1200 x 0.85 = 1020; revenue = 1020 x 1200 = $1224000.

3. Find revenue per available room (RevPAR = ADR x occupancy). A rival hotel nearby has an ADR of $900 and 92% occupancy; find its RevPAR and say which hotel performs better. [4]

Answer: RevPAR = 1200 x 0.85 = $1020; the rival = 900 x 0.92 = $828. The first hotel does better: its higher rate more than offsets the lower occupancy.

4. A three-night package uses a hotel at $800 per room per night (two sharing) and a return air ticket at $2,400 per person. The agent adds a 15% mark-up on cost. Find the cost and selling price per person. [4]

Answer: Hotel per person = 800 x 3 / 2 = $1200.0; cost = 1200.0 + 2400 = $3600.0; price = 3600.0 x 1.15 = $4140.0.

Part B Itinerary Design and Costing (16 marks)

Show your working for every answer.

5. A five-day, four-night tour costs $3,200 per person for air tickets, $1,100 per room per night for four nights (two sharing), $900 per person for local transport, $450 for entrance fees and $300 for the guide. Find the cost per person. [4]

Answer: Hotel per person = 1100 x 4 / 2 = $2200.0; cost = 3200 + 2200.0 + 900 + 450 + 300 = $7050.0.

6. If the tour is sold at $8,460 per person, find the gross profit margin as a percentage of the selling price, to one decimal place. [4]

Answer: Gross profit = 8460 - 7050.0 = $1410.0; margin = 1410.0 / 8460 x 100% = 16.7%.

7. The coach leaves at 09:15, reaches the lunch stop after 1 hour 45 minutes, spends 1 hour 20 minutes there, then drives 2 hours 30 minutes to Attraction B. Find the arrival time at Attraction B. [4]

Answer: Lunch arrival = 09:15 + 1 h 45 min = 11:00; after lunch = 11:00 + 1 h 20 min = 12:20; Attraction B = 12:20 + 2 h 30 min = 14:50.

8. The tour has 40 travellers and 25% of them are children. A child pays 70% of the adult fare of $8,460. Find the number of adults and children, the child fare and the total tour revenue. [4]

Answer: Children = 40 x 0.25 = 10; adults = 40 - 10 = 30; child fare = 8460 x 0.7 = $5922.0; total revenue = 30 x 8460 + 10 x 5922.0 = $313020.0.

Part C Visitor Behaviour and Spending (16 marks)

Show the calculation for each answer.

9. A visitor survey of 500 people found 42% shopped, 28% chose food, 18% visited attractions and 12% did something else. Find the number in each group and how many more shopped than visited attractions. [4]

Answer: Shopping = 500 x 0.42 = 210; food = 140; attractions = 90; others = 60 (total 500); difference = 210 - 90 = 120 people.

10. A visitor stays 3.2 nights on average and spends $1,050 per day. Find the total spending per visitor. [4]

Answer: Total spending = 3.2 x 1050 = $3360.0.

11. The repeat-visit rate of a destination rose from 32% to 36%. Find the rise in percentage points and the relative increase, to one decimal place. [4]

Answer: Rise = 36 - 32 = 4 percentage points; relative increase = 4 / 32 x 100% = 12.5%.

12. A similar survey covered 800 people; 45% were female and 60% of those women named shopping as their main purpose. Find the number of women and the number who named shopping. [4]

Answer: Women = 800 x 0.45 = 360; shopping as main purpose = 360 x 0.6 = 216.

Part D Guest Service and Service Quality (16 marks)

Give answers to one decimal place where appropriate.

13. A hotel logged 250 complaints in a quarter: 96 about rooms, 54 about food and beverage, 25 about transport and the rest about other matters. Find the percentage share of each category, to one decimal place. [4]

Answer: Other = 250 - 96 - 54 - 25 = 75; rooms 96 / 250 = 38.4%, food 21.6%, transport 10.0%, other 30.0%, totalling 100%.

14. The service pledge is to reply to complaints within 48 hours. Of 1,500 complaints this quarter, 96% met the pledge. Find the number met and not met. [4]

Answer: Met = 1500 x 0.96 = 1440; not met = 1500 - 1440 = 60.

15. A mystery shopper scores five service areas out of 5: 4.5, 4.2, 3.8, 4.0 and 4.5. Find the mean score and name the area needing most improvement. [4]

Answer: Mean = (4.5 + 4.2 + 3.8 + 4.0 + 4.5) / 5 = 21.0 / 5 = 4.2; the lowest score is 3.8, so that area needs most improvement.

16. A hotel employs 120 full-time staff and 18 left during the year; management has since hired 6 part-time staff to cover part of the gap. Find the staff turnover rate and the present headcount. [4]

Answer: Turnover = 18 / 120 x 100% = 15.0%; headcount now = 120 - 18 + 6 = 108.

Part E Economic Contribution and the Multiplier (16 marks)

Show the working and state the units.

17. Visitor spending reached $180 billion in a year, of which 60% was spent on local goods and services. Find the local spending and the amount leaking abroad, in $ billion. [4]

Answer: Local spending = 180 x 0.6 = 108.0 billion; leakage = 180 - 108.0 = 72.0 billion.

18. Assume the local marginal propensity to consume is 0.6 and the multiplier is 1 / (1 - MPC). Find the multiplier, and the total increase in local economic activity if visitors spend an extra $4 billion. [4]

Answer: Multiplier = 1 / (1 - 0.6) = 1 / 0.4 = 2.5; total increase = 4 x 2.5 = 10.0 billion.

19. Tourism value added is 4.5% of GDP, and GDP is $28,000 billion. Find tourism value added. Tourism also employs 280,000 people, 7% of total employment; find total employment. [4]

Answer: Tourism value added = 28000 x 0.045 = 1260.0 billion; total employment = 280000 / 0.07 = 4,000,000 people.

20. Hotels earn $12 billion of room revenue and spend 35% of it with local suppliers, who in turn spend 60% of what they receive locally. Find the first-round and second-round local purchases. [4]

Answer: First round = 12 x 0.35 = 4.2 billion; second round = 4.2 x 0.6 = 2.5 billion.

Part F Sustainable Tourism and Heritage (20 marks)

Show the working and add one sentence of comment from a management point of view.

21. An attraction has a daily carrying capacity of 3,000 visits, but in peak season 4,200 people arrive each day. Find the percentage by which demand exceeds capacity and suggest one way to spread the load. [5]

Answer: Excess = (4200 - 3000) / 3000 x 100% = 40.0%. Suggestion: use timed online booking and divert visitors to weekdays or nearby sites.

22. A country park recorded 2.5 million visits in a year; each visitor leaves 0.3 kg of waste and 25% is recycled. Find the total waste and the amount finally sent to landfill, in tonnes. [5]

Answer: Total waste = 2,500,000 x 0.3 = 750,000 kg = 750.0 tonnes; landfilled = 750.0 x 0.75 = 562.5 tonnes.

23. Restoring a heritage building costs $48 million, annual maintenance is $3.2 million and ticket income is $5.6 million a year. Find the annual net income and the payback period. [5]

Answer: Annual net income = 5.6 - 3.2 = $2.4 million; payback = 48 / 2.4 = 20.0 years.

24. One visitor generates 1,200 kg CO2e from a return flight, 18 kg per hotel night over 4 nights and 12 kg a day for 5 days of local transport. Find the total emissions, and the new total if a high-speed train cuts flight emissions by 65%. [5]

Answer: Hotel = 18 x 4 = 72 kg; local transport = 12 x 5 = 60 kg; total = 1200 + 72 + 60 = 1332 kg; by rail = 1200 x 0.35 + 72 + 60 = 552.0 kg.
