



Hong Kong Institute of  
**Accredited Accounting Technicians**  
香港財務會計協會

# **Professional Bridging Examination**

## **June 2015 Session**

---

**Paper II**  
**PBE Management**  
**Accounting and Finance**

## **Questions & Answers Booklet**

**SECTION A (COMPULSORY) (Total: 40 marks)**

Answer **ALL** questions in this section. Marks are indicated at the end of each question. Together they are worth 40% of the total marks for this examination.

**CASE**

PBE Entertainment Group (the “Group”) is a leading entertainment and resort group in Hong Kong. The Group is planning to build a new resort hotel on Lamma Island by investing HK\$4 billion (HK\$4,000,000,000). The new hotel consists of 800 rooms with catering facilities such as restaurants, ballroom and business meeting rooms. It also consists of an 1,000 seat entertainment theatre and a shopping mall.

From an analysis of the business, it is expected that the hotel room rate will be HK\$2,000 per room per night. The average occupancy rate will be 86%. Moreover, there are 3 restaurants in this resort hotel which cover Chinese, Western and Japanese style dining with a maximum capacity of 100 seats, 150 seats and 100 seats respectively. The average spending predicted per visitor for each dining session of these restaurants is shown in the following table:

Spending per visitor	Breakfast	Lunch	Dinner
Chinese Restaurant	N/A	HK\$200	HK\$400
Western Restaurant	HK\$200	HK\$300	HK\$400
Japanese Restaurant	N/A	HK\$200	HK\$400

The occupancy rates of these restaurants for each dining session are estimated as follows:

Occupancy rate	Breakfast	Lunch	Dinner
Chinese Restaurant	N/A	80%	50%
Western Restaurant	100%	100%	50%
Japanese Restaurant	N/A	60%	50%

Except for the breakfast session in the Western restaurant, all restaurants have an estimated average turnover rate of 1 customer per seat per session; while the breakfast session for the Western restaurant has an average turnover rate of 3 per seat per session.

The ballroom would normally be used for MICE (Meeting, Incentive, Convention and Exhibition) business. An estimated average fee of HK\$50,000 is required for a half-day use, excluding the catering charges. The ballroom will accommodate 300 people. It is estimated that the ballroom will be used for 500 half-days in a year for business functions. There will be about 100 wedding banquets in a year and the estimated average spending per customer per banquet is HK\$1,000.

This development project also consists of an entertainment centre and a shopping mall which will generate an estimated total annual profit of HK\$400 million.

Assume there are 365 business days in a year. You are the management accountant who is going to calculate the forecast of revenues and expenses for this hotel development project.

**Question 1 (23 marks – approximately 42 minutes)**

*All numerical answers should be rounded to whole numbers if it is not specified in the question.*

- (a) Calculate the annual room revenue for the new hotel and the annual revenue from the ballroom functions which includes the business functions and banquets. (4 marks)
- (b) Calculate the annual catering revenue for the three restaurants. (6 marks)
- (c) From the results in parts (a) and (b), what is the total revenue generated from the hotel operations in a year? (1 mark)
- (d) Assume the profit margin of the hotel operations is 5% and the cost of capital for this project is 8%. Based on the total revenue calculated in part (c) and the annual profit generated from the entertainment centre and shopping mall, should the Group accept this new hotel project under the net present value calculation if the investment horizon is 30 years? (5 marks)
- (e) What are the TWO determining factors in deciding the discount rate for an investment project? Explain briefly. (4 marks)
- (f) Point out ONE non-financial risk for the hotel operations and explain how this can be reduced. (3 marks)

**Question 2 (17 marks – approximately 30 minutes)**

*All numerical answers should be rounded to whole numbers if it is not specified in the question.*

The new resort hotel project of the PBE Entertainment Group on Lamma Island is estimated to generate income from both hotel operations and entertainment operations. It is expected that two guests would occupy a room, and their average spending in entertainment centre is HK\$1,500 per guest. The entertainment centre needs to pay 10% of the entertainment revenue as commission to intermediaries and the cost of sales is 15% of the revenue after the commission is paid.

**Required:**

- (a) Based on the number of hotel rooms presented in the case and the information above, how much is the total entertainment revenue to be received by the entertainment centre in a year? How much annual gross profit would be generated from the entertainment operation?

Note: Ignore any effect on taxation.

(5 marks)

- (b) Assume all of the guests of the entertainment centre come from mainland China. They bring their Renminbi (RMB) with them and need to exchange it to HK\$ in order to buy the ticket for the entertainment centre. The buying and selling rates of the RMB 1 offered by banks are 1.251 and 1.266 respectively. How much does each guest pay in RMB to exchange their Renminbi for HK\$1,500?

(2 marks)

- (c) If the entertainment centre offers an exchange service to the guests by giving a better exchange rate of 1.255 and 1.264. How much is a guest better off in RMB when he/ she exchanges Renminbi for HK\$1,500?

(2 marks)

- (d) If the entertainment centre offers an exchange service to guests who exchange their Renminbi based on the favourable exchange rate shown in part (c), what is the gain in HK\$ per day for the exchange service offered by the entertainment centre? Assume all guests of the new hotel use this service to exchange their entertainment spending.

(5 marks)

- (e) Explain TWO methods which can be used by PBE Entertainment Group to reduce the exchange rate risk from the exchange service?

(3 marks)

\* \* \* END OF SECTION A \* \* \*

**SECTION B (ANSWER THREE QUESTIONS ONLY)** (Total: 60 marks)

Answer any **THREE** questions in this section. Each question carries 20 marks. Together they are worth 60% of the total marks for this examination.

All numerical answers should be rounded to whole numbers if it is not specified in the question.

**Question 3** (20 marks – approximately 36 minutes)

Quality Repairing Service Company (QRS), which is a sole proprietorship in Hong Kong, provides services for repairing computers and recovering lost data in USB devices and hard-disks. It hires a part-time technician to carry out the repair services on an hourly basis. The sole proprietor of QRS is making a decision on pricing its services.

**Required:**

- (a) Describe TWO broad pricing approaches. (6 marks)
- (b) Assume the time used for repairing a computer is 9 hours, recovering data lost from a USB device is 45 hours, and recovering the data lost from a hard-disk is 150 hours. The average hourly wage for the part-time technician is HK\$60 and the target gross profit margin of QRS is 10%.  
Based on the above information, calculate the price for the services for (i) repairing a computer, (ii) recovering lost data from a USB device and (iii) recovering lost data from a hard-disk. (3 marks)
- (c) If the sole-proprietor used the marginal cost plus pricing method to determine the service price, briefly explain one advantage and disadvantage of this pricing method. (4 marks)
- (d) A customer requests QRS to perform a call-out service to repair a computer at HK\$1,000. Suppose the total travelling cost is HK\$320, the travelling time for the technician is 2 hours, and the technician takes 8 hours to perform this repair service. Based on the average hourly wage for a technician in part (b), should QRS accept this service order if the price for this call-out service is determined by cost-plus 25%? (4 marks)
- (e) Assuming QRS performed the call-out service mentioned in part (d) at a low price, suggest TWO possible pricing objectives, other than achieving the target return, that QRS may consider in its price setting. (3 marks)

**Question 4** (20 marks – approximately 36 minutes)

Financial markets consist of several types of categories.

**Required:**

- (a) Name and briefly describe **FOUR** different types of financial markets in an international financial centre. (8 marks)
- (b) The stock market index is a measure of stock market performance. (i) Suggest one limitation of the stock market index in measuring stock market performance, and (ii) name **THREE** major industries that you can find in the Hang Seng Index. (4 marks)
- (c) An initial public offering (IPO) is one way to raise new capital. A private placement and rights issue are two other popular methods. Explain the difference between private placement and rights issue. (4 marks)
- (d) Give **TWO** reasons why the stock price drops when a company announces the issuance of new shares. (4 marks)

**Question 5 (20 marks – approximately 36 minutes)**

In management accounting, allocation of overheads is a key issue.

There are five hotels in a hotel chain and their particulars are as follows:

Hotel	Location	Number of Rooms	Annual Revenue (HK\$)
A	East	300	149,600,000
B	South	195	88,400,000
C	West	225	136,000,000
D	North	255	88,400,000
E	Central	525	217,600,000

There are two corporate positions who oversee the operations of these hotels; they are director of operations and corporate sales director. The annual salaries of these two positions are HK\$2,000,000 and HK\$1,500,000 respectively.

**Required:**

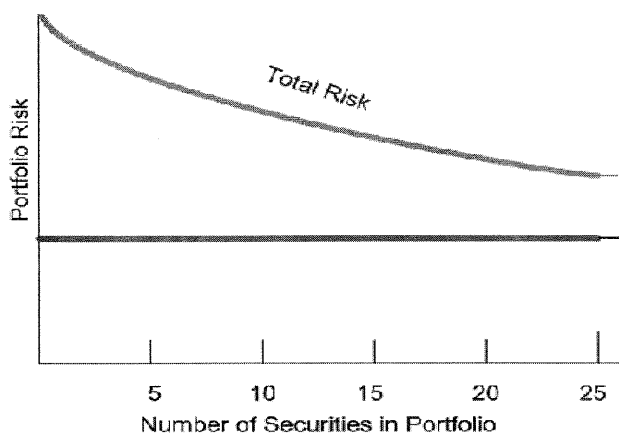
- (a) If the total salaries of these directors are shared equally among the five hotels, how much is the cost allocated to each hotel? Assume the two administrative positions are fixed overheads from the hotel chain's perspective. (3 marks)
- (b) If the total salaries of these directors are allocated based on the number of rooms, how much is the respective overhead charged to each hotel? Present your result in tabular form. (3 marks)
- (c) If the total salaries of these directors are allocated based on the percentage of total revenues earned, how much is the respective overhead charged to each hotel? Present your result in tabular form. (3 marks)
- (d) Which allocation method is best for hotel C? Explain briefly. (2 marks)
- (e) Some management argued that floor area or number of staff should be used in determining the amount of the overheads allocated to the hotels. Do you agree (or disagree) that floor area is an appropriate cost driver? Explain briefly. (4 marks)
- (f) "Higher cost allocated to a department/ unit is not necessarily a bad thing." What are the reasons behind this statement from (i) a cost centre perspective, and (ii) a profit centre perspective? (5 marks)

**Question 6 (20 marks – approximately 36 minutes)**

In 1990, Sharpe et al. developed a model to estimate the return of an asset with respect to the market return and risk free rate.

**Required:**

- (a) Write down the equation for this model. (1 mark)
- (b) What type of risk is the equation addressing? Describe the characteristic of this type of risk by giving one example. (4 marks)
- (c) Suppose the average return of the Hang Seng Index is 12% per year and the risk free rate is 0.2% per year. If the beta coefficient of a leading international bank in Hong Kong is 0.96, estimate its return by using Sharpe's model. (Numerical answer should be rounded to 2 decimal places.) (3 marks)
- (d) What is the meaning of beta coefficient? What does it measure? (4 marks)
- (e) Explain why the beta coefficients provided by different sources are different. (5 marks)
- (f) Refer to the graph below, what is the parameter for measuring the total risk? Which part of the total risk is not measured by the beta coefficient?



(3 marks)

\* \* \* END OF EXAMINATION PAPER \* \* \*



**SECTION A (COMPULSORY) (Total: 40 marks)**

**Answer 1(a)**

Annual room revenue is HK\$502,240,000.  
( $800 \times \text{HK}\$2,000 \times 86\% \times 365 \text{ days}$ )

Annual ballroom revenue is HK\$55,000,000.

Business functions	( $\text{HK}\$50,000 \times 500$ )	HK\$ 25,000,000
Banquets	( $100 \times 300 \times \text{HK}\$1,000$ )	30,000,000
		<hr/> 55,000,000 <hr/>

**Answer 1(b)**

Annual catering revenue is HK\$85,045,000.

**Restaurant**

		<b>Daily revenue</b>
		HK\$
Chinese	( $\text{HK}\$200 \times 100 \times 0.8 + \text{HK}\$400 \times 100 \times 0.5$ )	36,000
Western	( $\text{HK}\$200 \times 150 \times 3 + \text{HK}\$300 \times 150 + \text{HK}\$400 \times 150 \times 0.5$ )	165,000
Japanese	( $\text{HK}\$200 \times 100 \times 0.6 + \text{HK}\$400 \times 100 \times 0.5$ )	32,000
		<hr/> 233,000 <hr/>

$\text{HK}\$233,000 \times 365 = \text{HK}\$85,045,000$

**Answer 1(c)**

Total annual revenue generated from hotel operations is HK\$642,285,000.  
( $\text{HK}\$502,240,000 + \text{HK}\$85,045,000 + \text{HK}\$55,000,000$ )

**Answer 1(d)**

Annual profit for hotel operations	( $\text{HK}\$642,285,000 \times 5\%$ )	HK\$ 32,114,250
Annual profit from entertainment centre and shopping mall		<hr/> 400,000,000 <hr/> 432,114,250 <hr/>
PV for 30 years	( $\text{HK}\$432,114,250 \times 11.2578$ )	4,864,655,803
NPV for the hotel project	( $\text{HK}\$4,864,655,803 - \text{HK}\$4,000,000,000$ )	864,655,803

The Group should accept this new hotel project as the present value of the cash inflows would cover the initial cash outflow invested in the project.

**Answer 1(e)**

When determining the discount rate, it is affected by the cost of equity and cost of debt. The capital structure and financing value will affect the discount rate (called Weighted Average Cost of Capital, WACC).

**Answer 1(f)**

In running a hotel, food safety and customer service are essential non-financial elements. Providing regular training to staff could enhance customer service and implementing strict control measures in food processing could reduce the occurrence of food poisoning.

(Any other relevant answers are acceptable.)

**Answer 2(a)**

Annual total entertainment revenue received is  $(800 \times 0.86 \times 2 \times 365 \times$   
HK\$753,360,000.  $HK\$1,500)$

Annual gross profit for entertainment operation is  $(HK\$753,360,000 \times 0.9 \times 0.85)$   
HK\$576,320,400.

**Answer 2(b)**

Amount in RMB (original)                      RMB1,199.04                       $(HK\$1,500 / 1.251)$

The guest pays RMB1,199 to exchange Renminbi for HK\$1,500 based on the rates offered by banks.

**Answer 2(c)**

Amount in RMB (new)                      RMB1,195.22                       $(HK\$1,500 / 1.255)$

The guest pays RMB1,195 to exchange Renminbi for HK\$1,500 based on the rates offered by the entertainment centre. As such, the guest is better off by paying RMB4 less.

(RMB1,199 – RMB1,195)

**Answer 2(d)**

Number of visitors per day	1,376	$(800 \times 0.86 \times 2)$
Amount of RMB received from guests	RMB1,644,320	$(1,376 \times \text{RMB}1,195)$
Amount of HK\$ to guests	HK\$2,064,000	$(1,376 \times \text{HK}\$1,500)$
Amount of HK\$ received by exchanging RMB in Bank	HK\$2,081,709	$(1,376 \times \text{RMB}1,195 \times 1.266)$
Gain	HK\$17,709	$(2,081,709 - 2,064,000)$

**Answer 2(e)**

The Group can use a hedging technique such as a forward contract or use the Renminbi to procure materials to reduce the loss from exchanging RMB to HK\$.

\* \* \* END OF SECTION A \* \* \*

**SECTION B (ANSWER THREE QUESTIONS ONLY) (Total: 60 marks)**

**Answer 3(a)**

The two broad pricing approaches are cost based pricing and market based pricing. Cost based pricing structure is based on the cost of production plus a certain margin in setting the selling price. The pricing methods include absorption cost, marginal cost, standard cost or relevant cost. Another broad approach is market based pricing structure, which is based on the market conditions, demand and supply, or other factors in the prevailing competitive market.

**Answer 3(b)**

The service prices are:

HK\$594 for repairing a computer (9 hours x HK\$60 x 1.1),  
HK\$2,970 on recovering lost data from a USB device (45 hours x HK\$60 x 1.1) , and  
HK\$9,900 on recovering lost data from a hard-disk (150 hours x HK\$60 x 1.1).

**Answer 3(c)**

The marginal cost plus pricing method is not required to apportion the fixed overheads, which makes the method simple and rather mechanical. However, this method disregards market factors, and on some occasions, it is difficult to discern between variable and fixed costs.

**Answer 3(d)**

	HK\$
Travelling cost	320
Labour cost (2 + 8) x \$60	<u>600</u>
Total costs	920
Cost-plus 25%	<u>230</u>
	<u>1,150</u>

No, QRS would not accept this call-out service based on its pricing method as the price offered by the customer is lower than the price the Company sets.

**Answer 3(e)**

QRS may consider the customer's ability to pay for the service, so it ignores the target return set for the service. Moreover, it may also consider entering the new call-out service market, so it may set a low price for it.

(Any other relevant answers are acceptable.)

**Answer 4(a)**

The FOUR financial markets include the stock market for stock transactions, foreign exchange market for the trading of foreign currencies, commodity market and derivative market. The commodity market is for the transaction of commodities like gold, oil and sugar. The derivative market is for the trading of derivatives like futures and swaps.

**Answer 4(b)**

The stock market index is computed from the prices of selected stocks to measure the value of a section of the stock market. As such, it may not cover 100% of stock, so we cannot say it measures the performance of all stock. The industries included in the Hang Seng Index include finance, utilities, properties and commerce and industry.

**Answer 4(c)**

The two other methods are rights issue and private placement. The former issues new shares to existing shareholders and the latter issues old or new shares to interested parties, not necessarily existing shareholders.

**Answer 4(d)**

When a company announces the issuance of new shares, it may mean the stock prices are too high already or its debt level is high, it needs to raise capital by issuing more shares.

**Answer 5(a)**

Each hotel would be allocated HK\$700,000.  
 $(\text{HK\$}2,000,000 + \text{HK\$}1,500,000) / 5 = \text{HK\$}700,000$

**Answer 5(b)**

Hotel	Location	Number of Rooms	Allocation %	Overheads (HK\$)
A	East	300	20%	700,000
B	South	195	13%	455,000
C	West	225	15%	525,000
D	North	255	17%	595,000
E	Central	525	35%	1,225,000
Total		1,500	100%	3,500,000

**Answer 5(c)**

Hotel	Location	Annual Revenue (HK\$)	Allocation %	Overheads (HK\$)
A	East	149,600,000	22%	770,000
B	South	88,400,000	13%	455,000
C	West	136,000,000	20%	700,000
D	North	88,400,000	13%	455,000
E	Central	217,600,000	32%	1,120,000
Total		680,000,000	100%	3,500,000

**Answer 5(d)**

The allocation method based on the number of rooms which is the best method for hotel C because a lower overhead cost could be absorbed by it.

**Answer 5(e)**

The floor area or number of staff may be used in the allocation of overheads but its relationship with the overheads is not as close as using the number of rooms or revenue. It is essential when allocating costs to relate the cause and result. It seems that overheads are more closely related to revenue and the number of rooms.

**Answer 5(f)**

- (i) Apparently higher cost means lower profit, but higher cost also means more resources to be used. For example, a department can upgrade its equipment and recruit more people. This is true particularly from a cost centre point of view.
- (ii) Even for the profit centre, the higher the cost, the higher the resources in generating revenue. It all depends on how to utilise the increased resources to generate more revenue hence profit.

**Answer 6(a)**

$$R = R_f + (R_m - R_f) \times \text{beta}$$

**Answer 6(b)**

The equation is addressing systematic risk. Systematic risk is also called market risk. It cannot be reduced by diversification. Examples of systematic risk include interest rate, GDP, and Consumer Price Index.

**Answer 6(c)**

$$0.2 + (12-0.2)*0.96 = 11.53\%$$

**Answer 6(d)**

The beta coefficient measures the systematic risk of a stock relative to the market. It is based on the variation of returns of a stock in relation to the variation of market returns.

**Answer 6(e)**

Different sources use different references for market return. For example, some use the Hang Seng Index and some use MSCI Capital Market Index for Hong Kong Stock. In addition, different sources may use different time measurements such as weekly, monthly or yearly in measuring the returns. These all give different beta values.

**Answer 6(f)**

Total risk is measured by the standard deviation. Unsystematic risk or specific risk is not measured by the beta coefficient.

\* \* \* END OF EXAMINATION PAPER \* \* \*

Reference:

Pauline H.Y. Ho, Joseph S.W. Yau, PBE Paper II Management Accounting and Finance, Pearson 2014

**Note:** The suggested answers given above are much longer and in greater detail than the ones expected of candidates in the examination. The purpose of the suggested answers is meant to help candidates in their revision and learning. Also, these suggested answers may not include all valid points of each question. Credit should be given to candidates who give valid answers to the questions.

*(The main purpose of the following report is to summarise candidates' common weaknesses and make recommendations to help future candidates improve their performance in the examination.)*

## **General Comments**

Candidates performed well in this paper. Their performance proved that they were able to master the basic concept of management accounting; however, they should further improve their application of knowledge in solving practical problems. Further effort is also required to improve the financial management aspect.

## **Specific Comments**

### **Section A – Compulsory Questions**

#### **Question 1 – 23 marks**

This question tested candidates' abilities in analysing a case on profit planning and project evaluation. It replicated a real life but simpler case. The performance was not that satisfactory. Candidates might not have been able to digest the information presented in the case and therefore got an incorrect basic result for their further analysis. In parts (e) and (f), candidates were asked about the basic concept of the breakdowns of Weighted Average Cost of Capital (WACC) and operational risk of running a hotel. It is suggested that candidates should look further into issues beyond simply the numbers because accounting is a language for business.

#### **Question 2 – 17 marks**

This question tested candidates' knowledge of handling exchange rates for a future business development. The performance was not satisfactory. Candidates can further improve their application skills by doing more practice in handling everyday exchange rates, particularly with regard to the RMB as the economy of Hong Kong is closely related to China.

### **Section B – Optional Questions**

#### **Question 3 – 20 marks**

This was the second most popular optional question and the performance was the second best among all of the optional questions. It assessed candidates' abilities in terms of handling costing and pricing issues related to repair and maintenance. Most candidates handled it well.

#### **Question 4 – 20 marks**

This question was the least popular optional question and the performance was the second worst in Section B. It didn't involve any calculation and it tested candidates' understanding of the financial markets and the components of the Hang Seng Index. The results showed that candidates might not be paying attention to the financial market in real life. While revising the course material, candidates should relate it to real life which can enhance their learning and also make it more fun.



Question 5 – 20 marks

This was the most popular optional question and the performance was the best. It asked candidates about the basic rationale in cost allocation. Only a few candidates made mistakes in part (a).

Question 6 – 20 marks

This question was the second least popular question in Section B and the performance was the worst. It was a question about the Capital Asset Pricing Model (CAPM) and the basic concept of risk. These topics are basic concepts in financial management and the overall performance could be much better if this topic was mastered well, particularly in parts (a) to (c) and (f). The mean score for this question reflected that most candidates who attempted this question did not understand the concepts involved in this topic.

\* \* \* END OF EXAMINATION PANELIST'S REPORT \* \* \*