The Institute of
Chartered Accountants
of Pakistan

Certified Finance and Accounting Professional Stage Examination

4 December 2024
3 hours and 30 minutes – 100 marks

Business Finance Decisions

CRN:						

Name: ____________________

INSTRUCTIONS

Please carefully read the following instructions:

1. You are required to access your answer working area by using your Student ID and Password as mentioned on your Admit Card.
2. The overall duration of the exam is 3 hours and 30 minutes, which includes the 15-minute reading time and an extra 15 minutes of time that has been allocated due to the introduction of computer-based examinations.
3. All questions are compulsory.
4. Questions can be attempted in any sequence.
5. There is no specific time allocated for individual questions.
6. An auto-save function runs every minute. Further, your answers are saved automatically when you navigate between questions or click on the > **(NEXT)** or < **(BACK)** symbols.
7. Each question provides an answer area with a Rich Text Format (RTF) editor for writing your answers. Additionally, below the RTF editor, a spreadsheet is provided, where necessary, to facilitate examinees in doing rough calculations or other workings. **However, please note that any work performed in the spreadsheet will not be considered for marking. To ensure your work is considered, you must copy and paste it from the spreadsheet to the RTF editor.**
8. Work done in the spreadsheet of one question can also be copied into the RTF editor of the same or another question.
9. You may use Microsoft Office applications such as MS Word or MS Excel for rough working. However, please remember that any work performed in these applications cannot be copied into the examination software, and vice versa. Furthermore, any such work will not be uploaded with your exam for marking.
10. You may use pen and paper for rough work, but please note that pen and paper work should only be done on the last two pages of the question paper that are specifically allocated for this purpose. Remember that any rough work done on these pages will not be uploaded with your exam for marking.
11. In accordance with the open book policy of this paper, you are allowed to use only digital copy of the formula sheet. Keeping a hard copy of any book or notes is not permissible and will be considered a violation under the policy on the use of unfair means.
12. An external calculator can be used, provided it is included in the list of permissible calculators issued by ICAP.
13. During the exam, access to any website other than Assessment Master and the digital copy of the formula sheet is strictly prohibited. Engaging in such activities will be considered a violation under the policy on the use of unfair means.

Q.1 You work in the finance department of UB Sports Ltd (UB), a manufacturing company based in Punjab. The company manufactures balls used in sports; products include balls for soccer, netball, volleyball, and cricket. UB produces some UB-branded balls, but the majority of the production is for customer's own label products; in particular, Zone Sports and Bazanti Gym, two multinational companies, outsource production to UB.

UB is considering a diversification into the manufacture of rackets, primarily for the relatively new sport of pickleball. If the venture is successful, further racket product development is planned.

New contracts and revenue cash flows
The company is currently in initial discussions with Zone Sports and Bazanti Gym to produce rackets on their behalf. UB has developed a prototype racket for each client complete with unique design and branding; the cost of developing the prototypes was Rs. 14 million. UB has also incurred tender and marketing costs for the two proposals with a total cost of Rs. 10 million.

The directors are confident that the existing relationship with these two clients means that there is a strong possibility of winning new contracts to supply rackets to both customers. However, there is still some uncertainty over this as both customers already have existing relationships with racket manufacturers. The board has estimated that there is a 90% chance of winning the Zone Sports contract and an 80% chance of winning the Bazanti Gym contract.

There are several potential outcomes depending on the success of the negotiations. UB could win one, both or neither of the contracts. If successful, the contracts will be in place for five years.

If UB wins the Zone Sports contract, there is a 50% chance that the annual orders will be 1 million rackets, and a 50% chance that the annual orders will be 1.5 million rackets. UB would charge USD 30 per racket for the lower volume, but this would be discounted to USD 25 if the contract were for the higher quantity.

If UB wins the Bazanti Gym contract there is a 40% chance that annual orders will be 2 million rackets at USD 20 per racket and a 60% chance that annual orders will be 3 million rackets at a discounted price of USD 18.

In both cases, prices are for the first year only. The terms of the two contracts allow UB to increase the sales price after the first year. Variable costs are also expected to increase. UB anticipates that the net impact is for contribution to increase by 8% per year from Year 2 onwards.

Investment detail
If successful in winning a pickleball contract, UB would need to acquire specialised machinery at a cost of Rs. 4,000 million. This would be acquired at the start of the first year of manufacture. The machinery would be sold at the end of its five-year useful life for Rs. 340 million (at current price). The machinery would be eligible for an initial tax deduction at 25% of the cost; subsequent years will benefit from relief at 10% on a reducing balance basis with a balancing adjustment on sale.

The manufacturing cost depends on the volume of production for each client. The variable production costs in the first year start at USD 20 per racket if annual production is 1 million rackets. This reduces by USD 1 for each additional 500,000 rackets based on the economies of scale (e.g. the variable per unit cost of 1.5 million rackets would be USD 19). As the rackets are different for each potential client, there are no economies of scale by combining production quantities of the different rackets. Variable costs are primarily imported materials that is why these are in USD.

There is currently spare capacity within the factory and the existing workforce would be trained to use the new equipment. Production overheads, which include existing workforce labour costs, are typically added to a product cost at a rate of Rs. 5,500 per unit of production. UB does not anticipate a change to the total level of overheads.

Initial working capital of Rs. 1,000 million is needed immediately. This will increase by 8% per annum for the duration of the contract. The level of working capital can be deemed to be the same regardless of the final volume of sales.

UB has calculated that a real cost of capital of 11% is suitable for the risk of this project.

Other information

- UB pays tax in Pakistan at 29% per annum.
- Tax is payable in the same year as the profits to which the tax relates.
- Current exchange rate is USD 1: PKR 285.
- Inflation:
  - USA 3%
  - Pakistan 8%

Required:

(a) Calculate the expected Net Present Value (NPV) using inflated cash flows and recommend whether, on this basis, UB Sports Ltd should proceed with the investment. **(13)**

(b) Calculate the highest possible NPV and lowest possible NPV for UB Sports Limited. **(04)**

(c) Determine the sensitivity of the expected NPV of the project to the level of demand for rackets. **(03)**

(d) Briefly explain the limitations of expected values and sensitivity analysis. **(02)**

Q.2 Margalla Logistics Ltd (MA) provides transportation services to businesses throughout Pakistan. MA is a family run company which operates from several depots located in Pakistan and owns 20 articulated lorries. In recent months, several of the older vehicles have become unreliable leading to breakdowns and numerous periods where vehicles were out of service. The level of customer service has been affected. It is no longer sustainable to operate with the current fleet; consequently, five lorries need to be replaced as soon as possible.

To assist with longer-term planning, the board would like to establish a policy that defines future replacement of vehicles. The board would like you to analyse and recommend whether a five- or six-year replacement cycle is most suitable for the business.

Each articulated lorry costs Rs. 42 million. Annual maintenance costs increase with the age of the vehicle. In Year 1, the costs average Rs. 1.5 million. These costs increase by 20% each year so, for example, in Year 2, the annual maintenance cost would be Rs. 1.8 million. Maintenance costs are tax deductible; corporate tax is 29%. Tax is payable in the same year as the profits to which the tax relates. The company is profitable, and any net expense during a financial year results in a tax saving in the same year.

There is a limited opportunity to sell second hand articulated lorries; resale values are significantly lower such that a two-year-old vehicle could be sold for Rs. 20 million. The value typically then falls by Rs. 2 million for each additional year of age when sold (e.g. a three-year-old vehicle could be sold for Rs. 18 million).

The vehicles would be eligible for an initial tax deduction at 25% of the cost. Subsequent years will benefit from relief at 10% on a reducing balance basis, with a balancing adjustment on sale.

Historically, MA has always purchased vehicles outright, however the outlay of five new vehicles is a significant cost and the board would like advice on whether it would be beneficial to lease the vehicles rather than purchase them outright.

A suitable leasing company has been identified; one vehicle could be leased over a five-year period for an annual lease payment of Rs. 9 million, paid in advance. The lease costs are fully deductible for tax purposes. MA is still responsible for the maintenance of the vehicles under the terms of the lease agreement. Alternatively, if MA chooses to purchase the vehicles outright, the board can borrow the funds required from the bank at a post-tax cost of debt of 10%.

MA's cost of capital for project appraisal is 20%.

Required:

(a) Analyse the financial and non-financial considerations of the five-year and six-year replacement cycles. Advise, with the aid of suitable calculations, which replacement cycle is preferable. **(09)**

(b) Evaluate with supporting calculations whether the company should lease or purchase the vehicles outright. Assume a five-year replacement cycle in your calculations. **(07)**

Q.3 AZ Gaming Ltd (AZ) is a public listed company. AZ has developed several successful computer games that have benefitted from global success. The board of directors has recently received an unsolicited offer from World Games Ltd (WG) to acquire 100% of the share capital of the company. The cash offer values AZ at a premium of 20% on the current stock market value of Rs. 5,400 per share.

The board agree that the offer price is too low and consequently plan to advise shareholders to reject the offer. The board have asked for your help and advice in respect of the way forward and next steps.

The following information has been provided by the board of AZ.

Operating profit

The directors have forecast and published the forecast pre-tax cash operating profit for the next three years as follows:

Year ending 30 November	2025	2026	2027
	---------------- Rs. in million ----------------		
Pre-tax cash operating profit	2,400	2,800	3,200

Cash profit for future years is expected to grow at a minimum rate of 5% per annum. These cash flows are based on the existing portfolio of games and subsequent new releases of the best-selling products.

Realistically, the future cash operating profit could be much higher if any of the new games currently in the development phase (see below) become as successful as some of the existing catalogue games.

Research and development

The published forecast cash flows do not include the operating profit of a major new game that AZ hopes to release in 2025. The game, which has the working title 'Escape', is being developed in partnership with a major technology company. Escape is software for new virtual reality (VR) hardware. The VR software and hardware are currently under development. Due to the market sensitivity surrounding the development, AZ is not able to release details of the project to the market until much nearer the launch date.

AZ is confident that Escape will generate substantial, additional pre-tax cash operating profit in the future. The additional cash flows relating to Escape are estimated as follows:

Year ending 30 November	2025	2026	2027	2028
	------------------ Rs. in million ------------------			
Pre-tax cash operating profit	1,200	1,400	800	200

At the current time, the directors do not anticipate that the product will have a life beyond 2028 as technical advancement will mean that newer better products will be released.

AZ will, of course, continue to invest in research and development. A reasonable estimate of pre-tax cash operating profit from new games launched after Escape (i.e. from 2029) is estimated to be at least Rs. 1,000 million per year indefinitely.

AZ Gaming Ltd.
Statement of financial position as of 30 November 2024

	Rs. in million
Non-current assets	
Property, plant, and equipment	5,700
Intangible	9,350
	15,050
Current assets	
Inventory	2,850
Trade receivables	1,530
Cash	690
	5,070
Current liabilities	
Trade payables	(1,350)
Other payables	(125)
	(1,475)
	18,645
Capital and reserves	
Share capital	4,000
Retained profit	12,645
	16,645
Long-term liabilities	
Long-term loan	2,000
	18,645

The long-term loan comprises a 10% interest bank loan with HHL Bank; the loan is repayable in 2034. Share capital comprises 4 million ordinary shares with a nominal value of Rs. 1,000.

Recent market information:

Share price of AZ	Rs. 5,400
Earnings per share of AZ	Rs. 320
Equity beta of AZ	0.4
P/E ratio for WG	20.2
Market return	20%
Risk free return	10%
Tax rate	29%

Required:

(a) Evaluate whether the offer undervalues the company. **(15)**

(b) Advise the board of the steps they can take to defend against the hostile takeover. **(05)**

The Board of AZ Gaming is considering raising new equity capital to fund its acquisition strategy as part of its defence against a possible takeover. To achieve this, the board is looking to raise capital through a private placement of new shares directly to institutional investors rather than to the general public.

(c) Advise the board on two advantages and two disadvantages of a private placement to raise new equity capital. **(04)**

Q.4 For the purpose of this question, assume today's date is **30 June 2025.**

Ramiz Ltd (RL) is a Pakistan-listed automotive manufacturer that designs and distributes automobiles worldwide, ranging from mopeds to passenger cars to commercial vehicles. RL's largest manufacturing subsidiary outside Pakistan is based in the United States (US).

The US subsidiary imports materials for manufacturing from Europe. Europe is also a significant market for exports. Therefore, there are numerous payment transactions for purchases and receipts for sales between the USA and Europe.

Summarised information for payment and receipt cash flows due in three months-time at 30 September 2025 and denominated in Euro (EUR) are as follows:

	Receipt	Payment
	------------ EUR ------------	
Due on 30 September 2025	6,000,000	9,000,000

The directors are concerned, as they believe in the period from 30 June 2025 to 30 September 2025, the value of USD may decrease by 5% against the EUR.

Therefore, the board of directors of RL (the Board) would like to implement a hedging strategy to mitigate against the exchange rate risk identified in respect of the net EUR cash flows arising at 30 September 2025.

The Board have asked you to advise on the most suitable hedging strategy and requested a forecast of the resulting net USD cash flow at 30 September 2025 which could result after applying each of the following methods.

(i) No hedge
(ii) Forward contract hedge
(iii) Futures contract hedge
(iv) Option contract hedge
(v) Money market hedge

Further information on each hedging method is as follows:

SPOT RATE:	**EUR/ USD**	**EUR/ USD**
At 30 June 2025	0.9249	0.9266
FORWARD:		
3-month forward contract - Premium	0.0248	0.0294
FUTURES:	**At 30 June 2025**	**At 30 September 2025**
	EUR/ USD	**EUR/ USD**
30 September dated futures contracts	0.9220	0.8900
Contract size USD 125,000		
OPTION:		
Option contract offered by a commercial bank	**Call option**	**Put option**
Strike price (EUR/USD)	0.9120	0.9244
Premium fee	USD 0.015 per EUR	USD 0.012 per EUR
THREE-MONTH INTEREST RATES:		
(Quoted as annual rates)	**EUR rate**	**USD rate**
Borrow	5.5%	6.4%
Invest	4.5%	5.3%

Required:

(a) Determine the expected net USD cash flow at 30 September 2025 by applying the different hedging methods required by the Board of RL and summarise the expected net saving compared with not hedging. **(17)**

(b) Using your results from part (a), recommend to the Board, with reasons, the most suitable hedging strategy. **(03)**

Q.5 MB Ltd (MB) is a new private company that has been created by a recent management buyout. MB manufactures medical equipment which is used in hospitals in Pakistan. The three directors each own 20% of the company and the remaining 40% is owned by Private Finance Ltd, a venture capital company. MB is highly geared such that its capital structure is 40% debt and 60% equity.

You have been engaged as a consultant to advise the directors on several matters regarding the governance and management of the company. Firstly, the directors require guidance on the three key decision areas. Secondly, the directors need advice on setting suitable financial objectives for the business. Lastly, they require guidance on how and when to pay dividends.

Several different suggestions regarding dividends have been proposed by the MB's directors, as follows:

Aleena Malik
"I do not think we should pay any dividends for a few years. Given our plan to float the company in five years' time, we should be investing for growth, there are lots of potential investments that need funding."

Dastageer Kharal
"I disagree. I remember studying finance at university and I recall a well-known theory that concluded that dividend policy was irrelevant, so it doesn't matter whether we do or don't pay a dividend."

Zahur Siddiqui
"I have read that signalling is important when considering a dividend policy. I think we should follow best practice and ensure that our dividend policy sends the right signal."

Required:

(a) Explain the three key decisions in financial management and their importance to MB's board. **(04)**

(b) Suggest suitable financial objectives and KPIs for the board of MB Ltd. **(06)**

(c) Evaluate the directors' comments regarding the payment of a dividend and recommend whether and when a dividend should be paid. **(08)**

(The End)

Rough Sheet

Rough Sheet