Certificate in Accounting and Finance Stage Examination

The Institute of
Chartered Accountants
of Pakistan

6 September 2023
3 hours – 100 marks
Additional reading time – 15 minutes

Managerial and Financial Analysis

Instructions to examinees:
(i) Answer all **TEN** questions.
(ii) Answer in **black** pen only.
(iii) Multiple Choice Questions must be answered in answer script only.

Section A

Q.1 Select the most appropriate answer from the options available for each of the following Multiple Choice Questions.

(i) The higher management is considering to implement a structured risk management process in the organization. Which of the following should be considered the most fundamental step?

(a) Procuring tools for risk evaluation
(b) Establishing a dedicated risk management department
(c) Formulating a response to potential risk
(d) Setting clear expectations about the importance of risk awareness and open dialogue **(01)**

(ii) Which of the following statements correctly defines disruptive technology?

(a) An innovation that has a minimal impact on existing systems or habits
(b) An innovation that significantly alters the way consumers operate but doesn't affect industries or businesses
(c) An innovation that significantly alters the way consumers, industries, or businesses operate and sweeps away the systems or habits it replaces due to its superior attributes
(d) An innovation that affects only industries and businesses but not consumers **(01)**

(iii) Which of the following is **NOT** a component of the microeconomic environment?

(a) Consumer behaviour
(b) Broad economic factors that affect the entire economy
(c) Demand and supply forces in the marketplace
(d) Market environment **(01)**

(iv) Nowadays, consumers increasingly rely on ratings and reviews from previous buyers, especially through online means, when making purchasing decisions. This is an example of which social factor:

(a) Attitudes and lifestyles
(b) Demography
(c) Law and order
(d) Health **(01)**

(v) Which of the following best explains a deep-discounted bond?

(a) A bond with a low coupon rate that adjusts annually
(b) A bond with a low coupon rate that is sold at a significant discount to its fair value
(c) A bond with a high coupon rate but sold at a significant discount to its fair value
(d) A bond that is available in the market at a significant discount to its issue price **(01)**

(vi) ERP (Enterprise Resource Planning) systems are extensively utilized in organizations across various industries and sectors. These software solutions play a pivotal role in optimizing business processes.

Which of the following statements about ERP systems is true?

(a) ERP systems are primarily used for processing routine transactions like sales orders and bookkeeping
(b) ERP systems are designed exclusively for providing senior executives with up-to-date information for decision-making
(c) ERP systems are expert systems that offer advice and recommendations in specific areas of expertise
(d) ERP systems aim to integrate multiple information systems across the organization and enhance overall business strategy and operations **(01)**

(vii) Which of the following is a characteristic of a zero-coupon bond?

(a) Investor return is gained through capital appreciation
(b) It can have only one annual interest payment
(c) It is ideal for those investors who require a periodic return
(d) It cannot be sold before its maturity date **(01)**

(viii) Which of the following statements does **NOT** represent the characteristic of asset securitization and sale?

(a) It is commonly employed within the financial services sector
(b) It facilitates the transformation of non-marketable assets into marketable ones
(c) It enables companies to obtain borrowing rates reflective of the assets' rating rather than the company's own rating
(d) It is commonly utilized for short-term financing needs **(01)**

(ix) Which of the following correctly distinguishes between investment returns and speculation returns?

(a) Investment returns are usually generated only through capital appreciation, while speculation returns result from both capital appreciation and yield
(b) Speculation returns are usually derived from non-marketable assets, while investment returns are derived from marketable assets
(c) Speculation returns are usually generated through capital appreciation, while investment returns result from both capital appreciation and yield
(d) Speculation returns are usually derived from marketable assets, while investment returns are derived from non-marketable assets **(01)**

(x) A negative or inverse yield curve indicates that the market expects:

(a) long-term interest rates to fall at some time in the future
(b) short-term interest rates to fall at some time in the future
(c) short-term interest rates to rise at some time in the future
(d) long-term interest rates to rise at some time in the future **(01)**

(xi) An investor has purchased a put option on the shares of Vortex Limited (VL) at a strike price of Rs. 50 per share and paid a premium of Rs. 7 per share. If at expiration, the shares of VL are trading at Rs. 42, what will the investor most likely do?

(a) Exercise the option and make a net loss of Rs. 15 per share
(b) Not exercise the option as the shares can be bought at lower than the strike price
(c) Not exercise the option and make a net loss of Rs. 7 per share
(d) Exercise the option and make a net profit of Re. 1 per share **(1.5)**

(xii) A company has purchased an interest rate call option with a strike price of 18% per annum and a premium of 1% per annum for a notional three-month deposit of Rs. 100 million. If at expiration, the interest rate is 15%, what would be the net annualized interest as a percentage annual rate?

(a) 17% (b) 16% (c) 19% (d) 14% **(1.5)**

(xiii) GG Limited (GGL) has achieved an annual earnings per share of Rs. 60 and has reinvested 70% of the earnings as retained earnings while distributing 30% as dividends. Assuming that GGL is expected to continue this practice every year, and with a cost of equity capital of 18%, what is the approximate expected value of each GGL's share?

(a) Rs. 876 (b) Rs. 151 (c) Rs. 375 (d) Rs. 502 **(02)**

Q.2 Ali, a marketing manager at a software company specializing in mobile app development, has task of overseeing the marketing strategy for IQRA, an Arabic language learning app targeting the Indo-Pak region.

Despite IQRA's unique features, user-friendly interface, and cultural relevance, the fiercely competitive market and limited brand recognition pose significant challenges. Catering to varying language learning perceptions and localization challenges within the region adds complexity to the endeavour. The marketing team must navigate these hurdles with a limited budget while capitalizing on factors like the growing smartphone penetration, increasing interest in Arabic learning, and using social media and influencer marketing. Building partnerships with educational institutions will also be crucial for reaching the target audience effectively. To succeed, Ali's team must closely monitor and adapt to changing user preferences and promptly address any negative reviews or feedback. Moreover, they need to ensure compliance with regional legal and regulatory requirements to maintain user trust.

Required:

(a) Conduct SWOT analysis for IQRA. **(06)**

(b) Based on your answer in (a) above, suggest how each identified threat could be tackled using strengths of IQRA. ***(Note: Clearly state the strengths used to answer the question)*** **(04)**

Q.3 Nawaz Ali, a senior consultant at Vertex Financial Advisors, uncovers financial irregularities in a prominent client's records and promptly reports the same to the managing partner, Asif Ahmed. However, Asif Ahmed faces a challenging decision, as taking action against the client could lead to financial losses for both the firm and the client.

Required:

Apply Tucker's 5-question model to the situation and advise an appropriate action for Asif Ahmed to take. **(06)**

Q.4 In the bustling city of Urbana, the micro-mobility industry is a fierce battleground for major players: SpeedyScoot, CityRiders, and GoGreenBike. Newcomers face significant challenges with high start-up costs and strict government rules. However, customers enjoy a diverse range of micro-mobility options from the existing players, making it easy to switch between them. To stay ahead, companies use competitive pricing, enticing loyalty programs, and unique features. As the industry matures, speculations of mergers and acquisitions raise the stakes in this micro-mobility showdown.

The thriving micro-mobility sector owes its success in Urbana to its convenience for short-distance commutes. Established players compete through innovation in technology, pricing, coverage area, and fleet quality. There are numerous suppliers, primarily small to medium-sized firms offering innovative products. Urbana's well-planned infrastructure, with dedicated bike lanes and convenient parking, nurtures a culture of embracing micro-mobility for short commutes. Meanwhile, an efficient public transport system caters seamlessly to longer journeys, providing a comprehensive transportation solution for residents. The race for the ultimate winner in this dynamic micro-mobility market remains uncertain, making it an exciting and intriguing market to observe.

Required:
Perform a Porter's five forces analysis of Urbana's micro-mobility industry. Include the strength of each force and provide supporting arguments. **(09)**

Q.5 Pak Healthcare (PH) is an expanding medical facility that has three branches across the city. To ensure the confidentiality of information when communicating across branches, PH follows a strict policy of protecting all data using public-private key encryption. PH uses a standalone proprietary software, installed at each branch, for encryption. The software generates the keys and is also used to encrypt or decrypt the data when the keys are provided. All the employees are instructed to communicate encryption related messages through PH's secure chat channel.

Shehzad, a newly-hired Customer Services Representative, used his own public key to encrypt a file. He then sent his private key through the secure chat channel to a colleague in another branch.

Required:
(a) Explain the process of public-private key encryption. **(02)**
(b) Highlight the issues with Shehzad's actions and recommend corrective measures. **(04)**

Q.6 Suave, a renowned premium clothing brand known for offering formal office attire for men, caters to unique styles targeting adults aged 18 to 40 years. However, in the face of intensifying competition and ever-evolving consumer preferences, Suave is contemplating narrowing its focus to a specific age group within their target market. This shift will better utilize its limited budget and penetrate the market segment for higher revenues. During an open discussion forum with the employees, Suave received the following options for segments to target:

(i) **Senior Executives:** This segment consists of adults aged 45 to 60 years. They have a high disposable income and an appreciation of stylish clothes.
(ii) **Savvy Entrepreneurs:** This segment consists of cost-conscious entrepreneurs aged 30 to 40 years, who are seeking stylish yet affordable attire.
(iii) **College Fashionistas:** This segment consists of fashion-forward college students aged 18 to 25 years. They aim to make a stylish statement on campus, despite potentially having limited disposable income.

Required:
(a) Briefly discuss the suitability of each option. **(03)**
(b) Recommend a new suitable segment for Suave to consider. Provide reason(s) for your recommendation. **(02)**

Section B

Q.7 Armaan Khan recently registered a small spice exporting business and will begin exporting Biryani Masala to customers in the USA starting from October 2023. He managed to secure a cash injection of Rs. 0.5 million from his friends. He has promised to repay this loan by the end of 2023. Additionally, he has brought his personal car, valued at Rs. 1.5 million, into the business.

While formulating the planning and budgeting strategy, he developed the following estimates:

(i) An immediate investment of Rs. 1 million will be required to purchase the packaging machinery.
(ii) The month-wise projected sales (in rupee equivalence) from October 2023 to January 2024 are as follows:

Month	October 23	November 23	December 23	January 24
Amount in Rs.	7,500,000	10,500,000	13,500,000	15,000,000

(iii) 20% of sale receipts from customers are received in the month before sale, 60% during the month of sale, and the remaining in the following month.
(iv) The bank deducts a 1.5% tax at source from all customer receipts.
(v) To timely process the spices for export, Armaan must purchase the spices a month before the expected sales. Packing materials are readily available and can be purchased in the month of sales.
(vi) Further details regarding sales and purchase are as follows:

	Rupees
Sales price per carton	1,500
Spices required per carton (Rs. 400 per kg)	1,000
Packing material required per carton (Rs. 40 per foot)	60

(vii) 60% of the spice purchases are paid in the month of purchase, with the remaining amount settled in the following month. Packing material suppliers are paid in the month of purchase.
(viii) A 2% agency commission is payable to the agents in the month of sale.
(ix) Projected administrative expenses amount to Rs. 300,000 per month for the quarter ending 31 December 2023. The related payment is made in the month of its incurrence.
(x) Armaan has arranged a running finance facility of Rs. 3 million with a local bank at a mark-up of 25% per annum. The mark-up is payable at each month-end on the outstanding closing balance.

Required:
Prepare a month-wise cash budget for the quarter ending 31 December 2023. **(13)**

Q.8 Plasto Plastic Limited (PPL) is an all equity financed company. Following information has been extracted from PPL's financial statements as at 30 June 2023:

(i) PPL has ordinary share capital of Rs. 150 million with a face value of Rs. 10 per share.
(ii) On 30 June 2023, PPL paid an annual dividend of Rs. 25 per share.
(iii) PPL expects the next three annual dividend payments to be Rs. 25 per share. Thereafter, a 3% per annum growth rate is expected in perpetuity.
(iv) The equity beta of PPL's share is 0.8, and the average return on the stock market is 21%. The return on government bonds is 12%.

PPL is considering a new investment which would require an initial outlay of Rs. 600 million and is considering financing it with a 1-for-3 rights issue. The following additional information is available regarding the new investment:

(i) The investment would enable PPL to increase the dividend to Rs. 26 per share on 30 June 2024 and all subsequent dividends would increase by 5% per annum in perpetuity.
(ii) The investment is riskier than the average of PPL's existing investments and, therefore, the beta would increase to 1.05.

Required:
Using the dividend valuation model, determine whether PPL should undertake the new investment. **(11)**

Q.9 **Assume that the date today is 1 September 2023.**

Unity Rice Traders (URT) estimates that it will have 25.59 metric tons (MT) of rice available for sale on 29 February 2024. In view of the recent volatility in food prices, URT is considering hedging its market risk. The following information is available:

(i) The current spot price stands at PKR 90,000/MT.
(ii) The futures contract for one MT, set to expire in six months, is priced at PKR 93,500/MT.
(iii) The term of the forward contract for one MT, with six-months expiry, is as follows:

Buy	**Sell**
PKR 93,600	PKR 94,500

Required:

(a) Determine the outcome using the futures and forward contract hedging strategies, assuming the spot rate on 29 February 2024 is expected to be PKR 87,500/MT. **(05)**

(b) Suggest the optimal strategy for URT, along with appropriate justifications, in the event that the spot price is forecasted to rise to PKR 102,000/MT within the next six months. What could be the reason(s) that might prevent the execution of the optimal strategy? (***Note: Calculations are not required for this part)*** **(03)**

Q.10 Sania Cosmetics (SC) is considering the launch of a beauty product called Zinco. Following information has been gathered in this regard:

(i) SC will need to spend Rs. 250 million on purchasing and installing the plant for the manufacturing of Zinco. At the end of year 4, the plant's resale value is expected to be Rs. 65 million. The plant will be subjected to accounting/tax depreciation at 25% using the reducing balance method.

(ii) SC estimates immediate working capital requirement to be Rs. 75 million. A 15% increase, inclusive of inflation, in the working capital requirement (based on the previous balance) is anticipated at the start of years 2, 3, and 4. However, only 60% of the working capital is expected to be realised at the project's end. The remaining balance would be written off as unsaleable inventory at the end of year 4.

(iii) Sales of Zinco are expected to be 30,000 units per annum, remaining constant over a 4-year period. The selling price is estimated to be Rs. 4,000 per unit.

(iv) Raw material requirements for the year, along with current inventory details, are as follows:

	Raw Material	
	BW	**SB**
Annual requirement for Zinco (kg)	3,000	1,200
Current inventory (kg)	1,500	1,200
Cost per kg	Rs. 550	Rs. 4,200
Contribution margin if used on other products (per kg)	Rs. 200	Rs. 1,500

(v) SB will not be available in the market until the end of the first year. Further, it is also used in another product, requiring 600 kg for the year. However, that product will be discontinued at the end of the year. SB is not used in any other product and can be sold in the market at 50% of its cost.

(vi) SC estimates an annual labour requirement of 30,000 semi-skilled labour hours at Rs.150 per hour and 10,000 skilled labour hours at Rs. 250 per hour.

(vii) The annual fixed cost (excluding depreciation) is estimated to be Rs. 1.8 million.

(viii) The applicable tax rate would be 30%. Taxes will be payable or refundable in the year in which the tax liability or asset arises.

(ix) All revenues and costs are quoted in today's rate. Annual inflation is estimated to be 11% and will apply to all revenues and costs (except where specified) from the first year onwards.

(x) SC's cost of capital is 22%.

Required:

Compute internal rate of return (IRR) of Zinco and advise whether SC should introduce it.
(Assume that all cash flows arise at the end of each year unless specified otherwise.) **(17)**

(THE END)