Certificate in Accounting and Finance Stage Examination

The Institute of Chartered Accountants of Pakistan

6 March 2024
3 hours – 100 marks
Additional reading time – 15 minutes

Managerial and Financial Analysis

Instructions to examinees:

(i) Answer all **NINE** 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(s) from the options available for each of the following Multiple Choice Questions.

(i) In Tucker's five-question model, the question "Is it right?" primarily considers:

(a) Personal values
(b) Market values
(c) Environmental values
(d) Social values **(01)**

(ii) Which **TWO** of the following are examples of operational (pure) risks?

(a) Workers' strike
(b) Fire incident
(c) Stock market crash
(d) Product failure **(01)**

(iii) Which of the following technologies best exemplifies a disruptive innovation?

(a) Incremental software update enhancing existing features
(b) Introduction of a faster processor in a laptop
(c) Emergence of electric cars replacing traditional combustion engine vehicles
(d) Addition of new automatic machine in the existing product line **(01)**

(iv) Which **TWO** of the following are examples of strategic or enterprise (speculative) risks?

(a) Buying earthquake insurance for a property located in a seismic zone
(b) Investing in a start-up company
(c) Taking out a mortgage on a house
(d) Developing a new product **(01)**

(v) Which factor primarily influences the duration of finance sought for purchasing an asset?

(a) Expectations of interest rate movements
(b) Availability of collaterals
(c) Revenue generating time period of the asset
(d) Current market rates **(01)**

(vi) Which of the following statements distinguishes application controls from general controls?

(a) They are applied universally to all IT systems
(b) They are unique to a particular IT system or application
(c) They focus on physical security measures
(d) They are primarily concerned with IT standards **(01)**

(vii) Which **TWO** of the following can be used to estimate the cost of equity of a company?

(a) Gordon growth model (b) Internal rate of return
(c) Capital asset pricing method (d) Weighted average cost of capital **(01)**

(viii) Which of the following is correct regarding a bonus issue and a right issue?

(a) A bonus issue involves the issuing of shares to existing shareholders while a right issue involves offering shares to the general public
(b) A bonus issue increases the company's assets, while a right issue increases the number of shares in circulation
(c) A bonus issue increase the number of shares in circulation, while a right issue increases the company's assets
(d) A bonus issue requires purchase of additional shares at a discount while right shares are given at a premium **(01)**

(ix) Which of the following is the main objectives of an efficient capital structure?

(a) maximizing short-term funding, minimizing long-term liabilities, and maintaining high liquidity
(b) maximizing equity capital, minimizing debt financing, and ensuring high profitability
(c) minimizing equity capital, maximizing debt financing, and reducing overall financial risk
(d) striking a balance between equity and debt financing, ensuring adequate working capital, and balancing short- and long-term funding **(1.5)**

(x) When shares are traded "ex dividend (XD)", which of the following **TWO** statements accurately describe the situation?

(a) Buyers of shares at XD price are entitled to receive the dividend upon selling their shares
(b) The XD share price reflects the anticipation of future dividends
(c) Buyers of shares at XD price are not entitled to receive the upcoming dividend payment
(d) The XD share price is typically lower than when shares are traded "cum dividend" **(1.5)**

(xi) Following is the data extracted from the books of Zadran Limited (ZL). Assuming a 365 days' year, what is the length of ZL's cash operating cycle (in days)?

Inventory turnover	7.5 times
Trade receivables turnover	6.5 times
Trade payables turnover	5.0 times

(a) 177.82 days (b) 19.81 days (c) 31.82 days (d) 40.56 days **(02)**

(xii) A company entered into a 3 v 9 Forward Rate Agreement (FRA) with a bank for a notional principal of Rs. 5 million at 17.4% per annum to hedge its future borrowings. If at the end of the third month, the KIBOR is 18.65% per annum, what will be the settlement amount?

(a) Rs. 28,585 payable by the bank
(b) Rs. 31,250 payable by the bank
(c) Rs. 28,585 payable by the company
(d) Rs. 31,250 payable by the company **(02)**

Q.2 Presented below are scenarios of three entities, each confronting unique challenges necessitating structural changes.

(i) Easy Foods (EF), a long standing frozen food items producer with a large workforce, has started using automatic production and packaging machinery, which has greatly reduced manual work and production time. As a result, 45% of the workforce now faces reduced hours or no work.

(ii) Spicy Foods (SF), structured with multiple management levels, faces decision-making challenges and delays in addressing issues. In a recent presentation to the CEO, human resource department highlighted that technological advancements in SF have resulted in 40% overlapping duties across many levels of management.

(iii) Shiza Autos (SA), a growing automobile assembly plant, initially hired security staff through personal contacts and has been managing them manually, leading to operational challenges. SA recognises its lack of expertise in this domain and acknowledges the absence of technological tools necessary for efficient security process management.

Required:

(a) Briefly explain the strategies of outsourcing, restructuring, downsizing and de-layering in the context of the impact of technological changes and the need for organizational adjustments. **(04)**

(b) Suggest the right strategy for each of the mentioned entities, based on the strategies explained in part (a) above. Provide reasons for your answer. **(04)**

Q.3 Electrik Automobile (EA), a renowned multinational company is currently considering the establishment of an electric car assembly plant in Paland. With manufacturing and assembly plants spread across various countries, EA aims to capture the growing market for electric vehicles. The proposal includes selling a specific number of electric cars locally in Paland and exporting the remaining production to various parts of the world. EA's strategic move is driven by the absence of electric car assembly facilities in Paland, presenting an opportunity to cater to the evolving preferences in the automotive industry.

With the evolution of the automotive industry, electric cars are positioned not only as efficient means of transportation but also as lifestyle choices and status symbols across the world. EA's target demographic in Paland consists of individuals seeking eco-friendly alternatives amid rising petrol prices. Despite the somewhat unstable political and economic conditions in Paland, the government is actively working to instill confidence among foreign investors by providing tax exemptions and strengthening emission regulations, aligning with EA's expansion plans. This venture not only promises economic benefits and job opportunities for the local population but also addresses the increasing environmental concerns by introducing electric vehicles to the market.

Required:

(a) Perform PESTEL analysis of electric automobile industry in Paland. **(08)**

(b) Conduct SWOT analysis for EA. **(06)**

Q.4 ZAM Accountancy School (ZAM) has been a renowned professional education provider for 35 years, known for its quality education and impressive results. With purpose-built campuses in three major cities and 10 branches in five cities, ZAM offers both online and face-to-face classes equipped with the use of latest technological tools that are considered best in the industry. ZAM hires highly qualified and experienced professionals. Unlike other accountancy schools, ZAM offers crash courses before exams and free mock exams that contribute to identifying deficiencies and improving performance. In a unique approach, ZAM conducts career counseling sessions and offers free one-to-one advisory sessions, setting it apart from other accountancy schools.

Required:

Briefly explain threshold resources, unique resources, threshold competencies and core competencies, and relate them to the scenario. **(10)**

Q.5 ANZ (Pvt) Ltd (ANZ) is in discussions with potential investors for a crucial funding round. Abrar, the accountant, discovers that a significant portion of ANZ's accounts receivable is likely uncollectible, which would negatively impact the company's financial health and overall stakeholder benefits. ANZ's management asks Abrar to temporarily delay recognizing these bad debts to present a more positive financial picture.

Required:
Discuss end-point ethics and rule ethics in light of the scenario above. **(04)**

Section B

Q.6 Majestic Alliance (MA) is engaged in producing and selling a single product, AZ08. MA is currently preparing its budget for the year ending 31 March 2025. The budgeted production volume is set at 300,000 units. The budgeted production costs per unit are as follows:

Material A	30 kg per unit @ Rs. 200 per kg
Material B	18 kg per unit @ Rs. 150 per kg
Skilled labour	4.5 hours per unit @ Rs. 500 per hour
Semi-skilled labour	3.5 hours per unit @ Rs. 300 per hour
Other variable overheads	Rs. 567 per unit

Additional information relating to budgeted production

(i) The budgeted selling price of AZ08 will be cost of manufacturing plus 25%.

(ii) The normal defective units during production are 5% of budgeted production, which can be sold at Rs. 10,000 per unit.

(iii) Fixed production overheads are budgeted at Rs. 129.9 million per annum, whereas total selling and administration expenses are budgeted at Rs. 3 million per annum.

(iv) There will be no opening or closing inventories of AZ08.

Suggestions of financial controller

The newly appointed financial controller has suggested following revisions to the current policies, believing they would improve MA's profitability:

(i) Currently, 40% of AZ08 sales comprises credit sales. He proposed offering a 3% discount for upfront cash payment that would increase the total sales volume by 5%. He is of the view that this would also reduce the volume of credit sales to 20% of total sales.

(ii) Implementing strict quality controls is recommended to improve quality of procured materials, which would reduce the number of defective units to 3% of total production. However, these controls would increase fixed production overheads by Rs. 2 million per annum.

(iii) MA has faced challenges regarding packaging of AZ08. To overcome these challenges, negotiations with a packaging company have been concluded. This deal would result in outsourcing of the packaging process for a lump sum cost of Rs. 200 per good unit. This would also lead to:

- a reduction of semi-skilled labour costs by 25% and skilled labour costs by 5%.
- a reduction of variable overheads by 15%.

Sales price would remain the same despite the implementation of the above measures. All other information relating to the budgeted production will remain the same.

Required:
Prepare a budgeted profit or loss statement under the present situation and after the implementation of the suggestions made by the financial controller. **(13)**

Q.7 Arctic Meridian Limited (AML) specializes in the establishment, maintenance and operation of a fiber optic cable system. Following information has been extracted from the latest financial statements of AML:

	Rs. in '000
10 million ordinary shares @ Rs. 10 each	100,000
11% bank loan	15,000

The risk-free rate of return is 9%, while the risk premium is 6%. The equity beta for AML's share is 1.1. The market value of AML's share is Rs. 45 each and is expected to grow by 5% per annum.

Expansion plan
AML is all set to expand its business by acquiring a local fiber optic business for Rs. 240 million. For this venture AML's management is considering either of the following two financing proposals:

(i) Issue right shares at a premium of Rs. 10 per share. The equity beta would remain unchanged under this proposal.
(ii) Issue 13% convertible bonds at par value of Rs. 1,000 each. The bondholders would have a right to either convert each bond into 15 ordinary shares or redeem it at par at the end of the third year. This proposal would result in an increase in equity beta to 1.2.

The tax rate applicable to AML is 30%.

Required:
Recommend the financing proposal that would result in a lower weighted average cost of capital (WACC). **(12)**

Q.8 (a) Imran Trading Company (ITC) intends to borrow Rs. 30 million in one month's time for a period of 6 months. Being concerned about the volatility in the KIBOR rate, ITC has taken out a borrower's option with a strike rate of 21% for a notional 6-month loan of Rs. 30 million. The option will expire in one month's time. The option premium is the equivalent of 0.5% per annum of the notional principal.

The current and the expected KIBOR rates are as under:

	Current KIBOR	Expected KIBOR in 1 month's time
1-month KIBOR	19.5%	22.0%
6-month KIBOR	20.5%	23.5%

Required:
Determine whether the option would be exercised. Also calculate the net effective interest rate. **(04)**

(b) **It is now 1 March 2024.** Medical Hub (MH) signed an agreement with an American Welfare Organization to build a world class medical school in Pakistan, offering free medical education. In lieu of this agreement, MH anticipates to receive a grant of USD 50 million in June 2024. To hedge this potential receipt, MH wishes to use a currency option. Each currency option is for USD 5 million.

The current spot exchange rate is USD 1 = PKR 279. June options are available with a strike price of PKR 280 and a premium of PKR 500,000 per option. MH expects that spot rate in June will move to USD 1 = PKR 276.

Required:
Determine whether the option should be purchased. ***(Show all necessary computations)*** **(04)**

Q.9 Zaid Limited (ZL) launched a product called 'Zing' two years ago and prepared a five-year projection for it. In the first year, Zing performed well and achieved all milestones. However, in the second year, the machine used for production of Zing developed certain operational issues. While ZL was able to maintain the production of the originally estimated quantity, the quality of Zing was significantly affected, resulting in lost sales. ZL is now considering either replacing the machine and continuing with Zing's production or discontinuing Zing's production.

Following information is available in this respect:

Original estimates:

(i) ZL purchased an old machine costing Rs. 120 million for production of Zing and had to incur an overhaul cost amounting to Rs. 25 million immediately and another overhaul of the same amount would have to be incurred at the end of third year.

(ii) As per ZL's policy, the machine was depreciated at a rate of 25% using the reducing balance method. It was anticipated that the residual value of machine would be equal to its written down value at the end of the project i.e. the fifth year.

(iii) Initial investment in working capital was assessed at Rs. 20 million, with no further additions required in subsequent years. ZL anticipated that only 25% of this investment would be realized at the end of the fifth year.

(iv) A warehouse was rented for a 5-year period at an annual rent of Rs. 5 million, subject to an annual increase of 10%. Early termination of the agreement would incur a penalty equivalent to 6 months' rent.

(v) Production and sales were estimated at 40,000 units per annum for all the years. However, in the second year, only 15,000 units were sold due to quality issues.

(vi) The sales price for the first year was Rs. 1,500 per unit, with an annual increase of 10%.

(vii) Variable costs were estimated at Rs. 650 per unit, with fixed costs (other than rent) associated with Zing at Rs. 1.5 million per annum. Both costs were subject to a 7% annual increase.

(viii) The weighted average cost of capital is 18%.

(ix) ZL operates in a tax-free environment.

(x) All cash flows would arise at the end of the year, except where stated otherwise.

Option 1: Replace the machine and continue with the production of Zing

(i) A Chinese supplier has offered ZL the opportunity to trade-in the old machine for Rs. 60 million and upgrade to the latest machine for an additional investment of Rs. 100 million. This would help ZL in maintaining the production of Zing at standard quality for the remaining period of project. At the end of the project, ZL expects selling this upgraded machine with a 15% profit above its written down value.

(ii) ZL can negotiate a contract with an existing customer to sell the existing stock of Zing at 85% of the price based on the original estimates.

(iii) The new machine is expected to reduce variable cost by 8% compared to the original estimates.

(iv) All other information would remain consistent with the original estimates.

Option 2: Discontinue production of Zing

(i) Under this option, the existing stock of Zing would be sold at 80% of the price based on the original estimates.

(ii) Machine would be sold for Rs. 50 million on an 'as is where is' basis.

(iii) 35% of the working capital would be realized.

(iv) All other information would remain consistent with the original estimates.

Required:

Evaluate both options by using net present value method. Recommend the best course of action for ZL to follow. ***(Net present value based on original estimates is not required)*** **(16)**

(THE END)