Certified Finance and Accounting Professional Stage Examination

The Institute of Chartered Accountants of Pakistan

3 December 2019
3 hours – 100 marks
Additional reading time – 15 minutes

Business Finance Decisions

<u>Instructions to examinees:</u>
(i) Answer all **FIVE** questions.
(ii) Answer in black pen only.

Q.1 Awam Limited (AL) manufactures and sells electrical equipment for the last 20 years. AL is presently experiencing liquidity issues due to slow recovery from its debtors. You have been assigned the task to review debtors' policy. You have gathered the following information:

(i) Extracts from AL's latest financial statements:

	Rs. in million
Sales (85% credit sales)	41,100
Cost of goods sold (20% fixed)	34,700
Debtors	7,657

(ii) Debtors with past due of 100 days are classified as bad debts. Bad debts are currently 6% of credit sales. All such bad debts are referred to a legal firm. The legal proceedings take an average of four months, in which 25% of bad debts are recovered in full and remaining are recovered at an average of 60% only. The legal firm charges a monthly retention fee of Rs. 0.5 million per month plus 15% of the recovered amount.
(iii) AL maintains a recovery department at a monthly cost of Rs. 0.6 million.
(iv) AL has a running finance facility at an interest rate of 14% per annum.

The CEO informs you that following options are under consideration for improving the collection from debtors:

Option I
Offer early payment discount of 2% to all debtors who would make the payment within 30 days. However, if payment is delayed by more than 40 days then surcharge of 0.035% per day would be charged. Under this option, it is estimated that:

- credit sales will be reduced by 8%.
- 30% of the customers will avail early payment discount.
- debtors' turnover in days will be reduced to 55 days.
- bad debts will be reduced to 2.5% of the credit sales.
- the services of the legal firm will not be required.

Option II
Engage Kay Investment (KI), a factoring agency, to manage the debtors. Under this option:

- KI has offered to take over the administration of debtors with recourse basis on the following terms:
  - It would charge a fee of 2% of sales amount.
  - Average collection period would be reduced by 10 days.
  - KI would advance 80% of the trade debts as soon as the sale is made for which it would charge an interest of 12% per annum.
- It is estimated that bad debts will be reduced to 1.5% of credit sales.

Required:
(a) Advise whether it would be feasible for AL to adopt any of the above options. **(15)**
(b) In case of opting for factoring arrangement with KI, briefly discuss the difficulties which AL may encounter. Also discuss how these difficulties can be resolved. **(04)**

Q.2 Karakorum Limited (KL) is considering to expand its business by acquiring 100% shareholdings in Shalimar Limited (SL) which is operating in the same industry.

Following information has been extracted from the latest audited financial statements of both entities:

Statement of profit or loss

	KL	SL
	Rs. in million	
Revenue	564	177
Cost of sales	(384)	(110)
Operating expenses	(84)	(30)
Profit before interest and tax	96	37
Interest expenses	(18)	(16)
Profit before tax	78	21
Taxation @ 30%	(23)	(6)
Net profit	**55**	**15**

Statement of financial position

	KL	SL
	Rs. in million	
Share capital (Rs. 10 each)	205	127
Retained earnings	289	75
Long term loans (KL: 11%, SL: 12%)	165	148
	659	**350**
Non-current assets	384	286
Current assets	463	198
	847	484
Current liabilities	(188)	(134)
	659	**350**

Other information:

(i) The proposed acquisition would enable KL to save operating expenses by Rs. 31 million per annum. However, KL would have to pay Rs. 20 million immediately to the outgoing staff.

(ii) Following projections have been worked out in respect of merged entity:

- *In first three years*
  - Growth in revenue and cost of sales (other than depreciation) would be 6% per annum.
  - Operating expenses (other than depreciation) would grow by 5% per annum.
- *From fourth year and onwards*
  Free cash flows are expected to grow at a constant rate of 3% per annum.
- Current assets and current liabilities would grow in line with revenue.

(iii) Depreciation represents 25% of cost of sales and 10% of operating expenses in both entities. It is expected that there will be no material change in depreciation over the years. Assume that tax depreciation is equal to accounting depreciation.

(iv) Current market price of KL and SL are Rs. 38 and Rs. 20 per share respectively.

(v) The weighted average cost of capital will be 18% following the acquisition of SL.

Required:

(a) Using the free cash flow method, determine the maximum price that KL may pay to the shareholders of SL. **(13)**

(b) Assume that the offer of Rs. 450 million is accepted by SL's shareholders. Discuss the impact of this acquisition on control, gearing and earnings per share of KL if it is funded:

(i) with new debt at 10%; or (ii) by issuance of shares. **(10)**

Q.3 Ghauri Limited (GL) is engaged in the manufacturing of product Zee. Presently, GL is considering to bid for a tender which requires supply of modified version of product Zee (Modified Zee) for three years. The marketing director believes that it is unlikely to win the tender if the bid price of Modified Zee exceeds Rs. 5,000 per unit.

Following information is available:

(i) GL would require to supply 40000, 80000 and 50000 units in years 1, 2 and 3 respectively. The price quoted in the tender would be the same in all three years.

(ii) The planning department of GL has incurred a cost of Rs. 0.5 million on preparing the feasibility for production of Modified Zee.

(iii) GL would purchase a machine costing Rs. 50 million to meet the additional production requirements. At the end of year 3, the machine would have no use for GL and would be disposed of at 50% of the original cost.

(iv) An additional Rs. 100 million would be required initially to finance the working capital.

(v) Production of each unit of Modified Zee would require three raw materials i.e. 3 units of AB5, 2 units of CD7 and 1 unit of EF2. Current stock position of all three raw materials are as follows:

Raw material	**Units in stock**	**Original purchase price per unit**	**Current purchase price per unit**	**Current disposal value per unit**	**Remarks**
		---------------	**Rupees**	---------------	
AB5	100,000	450	500	250	See Note 1
CD7	90,000	375	330	220	See Note 2
EF2	40,000	125	150	75	See Note 3

Note 1: The material is in continuous use of GL.

Note 2: This material has not been required for the last one year. The only alternative utilization of this material is to use as a substitute for material PK1 (in current use) but this would involve further processing cost of Rs. 240 per unit. The current cost of material PK1 is Rs. 540 per unit.

Note 3: It was purchased two years ago for another project. It can be used in the production of Modified Zee. Otherwise, it would be disposed of. The disposal cost would be Rs. 25 per unit.

(vi) Every 100 units of Modified Zee would require 600 skilled labour hours and 400 unskilled labour hours. Skilled labours are paid at the rate of Rs. 30,000 per month whereas replacement would be obtained at the rate of Rs. 35,000 per month. Idle labour hours are paid at 70% of normal rate. The standard working hours per month are fixed at 200 hours. Unskilled labour can be hired at Rs. 50 per hour.

If GL is not able to win this project, there would be 14000, 18000 and 16000 idle skilled labour hours in years 1, 2 and 3 respectively.

(vii) Presently, GL absorbs overheads at Rs. 150 per skilled labour hour, 40% of which are consisted of fixed overheads.

(viii) From year 2 and onwards, the rate of inflation is estimated at 8% per annum.

(ix) GL's cost of capital is 16%.

Assume that all cash flows arise at the end of the year unless specified otherwise.

Required:

(a) Advise whether it is feasible for GL to bid for tender at a price suggested by the marketing director. **(21)**

(b) Estimate the project's sensitivity to:

(i) sales price **(02)**

(ii) cost of capital **(02)**

(Ignore taxation)

Q.4 (a) **For the purpose of this question, assume that today is 30 November 2019.**

On 1 September 2019, Greenline Investments Limited (GIL) bought three-month share options which can be exercised at any time up to its maturity date i.e. 30 November 2019. While approving the investment in options, GIL's Investment Board advised the management as follows:

- Exercise 60% of the options when any options yield 10% at any time.
- Exercise further 40% of the options if any options yield 20% at any time.
- For all remaining options at 30 November 2019, exercise options if they are 'in the money'.

Following information in respect of options are available:

	Share Symbol			
	LP1	**SP2**	**BD3**	**NM4**
Type of share options purchased	Call	Call	Put	Put
No. of share options purchased	250,000	1,000,000	500,000	300,000
	------------------ **Rs. per share** ------------------			
Exercise price	240.00	16.00	158.60	285.50
Options premium	7.00	1.00	4.50	8.00
3 months - High	304.60	19.00	165.20	295.00
3 months - Low	235.30	15.50	150.00	255.00
Spot price as on 30 November 2019	292.00	17.80	155.00	290.00

Required:
Determine the net profit/(loss) for GIL, if advice of the Investment Board has been followed. **(12)**

(b) Briefly discuss the relative advantages of using exchange traded options and over-the-counter (OTC) options. **(04)**

Q.5 Tezgam Investment Limited (TIL) has recently disposed of its investment in Sukuks for Rs. 500 million. Considering the recent sharp decline in the equity market, TIL believes that it is a good time to invest the proceeds of Sukuks in an equity based mutual fund for one year. While investing in any mutual fund, TIL's management always looks for a fund with a high alpha value, in hope of getting a high return on investment.

TIL's Investment Manager has identified three equity based mutual funds for investment. Details of these mutual funds alongwith their estimated Net Asset Values (NAVs) on expected date of investment (i.e. 1 January 2020) and 31 December 2020 are as follows:

Mutual fund	Benchmark index	Estimated NAV per unit on		Load		Sharpe ratio	Correlation with benchmark index
		1 Jan 2020	**31 Dec 2020**	**Front end (Buying)**	**Back end (Selling)**		
A	KMI-30	15.92	21.55	1.00%	2.00%	0.59	0.60
B	KSE-100	77.81	100.15	2.00%	2.00%	2.51	0.94
C	KSE-100	95.36	123.31	Nil	1.50%	1.39	0.99

Details of return and standard deviation of benchmark indices are as follows:

	KMI-30	**KSE-100**
Return (%)	30.00%	26.35%
Standard deviation (%)	15.11%	17.47%

The yield on 1-year treasury bill is 10%.

Required:
(a) Using alpha value, recommend which mutual fund should be selected for investment. **(14)**
(b) Briefly discuss the limitations of using the alpha value for evaluating the investment. **(03)**

(THE END)