# ICMA Pakistan

**SPRING 2013 EXAMINATIONS**
Monday, the 26th August 2013
**STRATEGIC FINANCIAL MANAGEMENT – (AF-503)**
**SEMESTER-5**

| **Extra Reading Time:** | **15 Minutes** | **Maximum Marks: 90** | **Roll No.:** | |
|---|---|---|---|---|
| **Writing Time:** | **02 Hours 45 Minutes** | | | |

(i) Attempt all questions.
(ii) Answers must be neat, relevant and brief.
(iii) In marking the question paper, the examiners take into account clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram/ chart, where appropriate.
(iv) Read the instructions printed inside the top cover of answer script CAREFULLY before attempting the paper.
(v) Use of non-programmable scientific calculators of any model is allowed.
(vi) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
(vii) Question No.1 – "Multiple Choice Question" printed separately, is an integral part of this question paper.
(viii) **Question Paper must be returned to invigilator before leaving the examination hall.**

**Answer Script will be provided after lapse of 15 minutes Extra Reading Time (9:30 a.m. or 2:30 p.m. [PST] as the case may be).**

**Marks**

**Q. 2** The management of XYZ Ltd., has recently decided in principle to introduce a formal scheme of long range planning. The CFO of the company has already apprised the board that the goal of financial management is to maximize the wealth of the shareholders or maximize the current value per share of the existing stock though the financial goals of a company may be to survive, avoid financial distress and bankruptcy, beat the competitors, maximize the sales, increase the market share, minimize cost, maximize profit, and maintaining the steady earnings growth.

The managing director has made it clear that financial objective of the company must be compatible with each other and all adjustments must be made accordingly.

The following estimates have been presented at a meeting called to discuss the long range financial plan:

- Sales revenue for the current year is Rs. 20,000,000 and forecasts for the next five year are Rs. 21,200,000, Rs. 22,800,000, Rs. 24,800,000, Rs. 27,200,000 and Rs. 30,000,000.
- The ratio of earnings after tax (EAT) for the year to sales revenue is 10%, and this is expected to continue throughout the planning period.
- Total assets less current liabilities will remain at around 125% of sales. The current year equity including the retained earnings is Rs. 17,500,000 which will increase with the addition in retained earnings for each year.
- If earnings rise, dividends should also rise at least by the same percentage.
- A retention ratio of 50% should be maintained.
- The ratio of long-term borrowing to long-term funds (debt plus equity) is limited to 30%, which is the current gearing level of the company.
- To overcome any short fall in the funds, the raising new equity would be difficult for the company because it would not be able to make suitable dividend payments to the shareholders.

**Required:**

**(a)** Calculate any excess/short fall in the funds by preparing a financial analysis for the next five years based on suggested policies for dividends, retained earnings and gearing. **12**

**(b)** What possible course of actions would you suggest to make the financial objectives of the company compatible? **03**

**Q. 3 (a)** ABC Ltd., is a renowned name for its quality leather products. The company has introduced its products to the European market and got good business. In the last year, the company also enjoyed a big success because United Kingdom placed a huge order for leather jackets. This order is not expected to be repeated. The company, in the absence of any attractive investment opportunities in hand, intends to utilize surplus funds via repurchase of its stock.

**Marks**

ABC Ltd., has net income of Rs. 4,000,000 and it has 2,000,000 shares of common stock outstanding. The company's stock currently trades at Rs. 32 a share. ABC Ltd., is considering a plan where it will use available cash to repurchase 20% of its shares in the open market. The repurchase is expected to have no effect on either net income or the company's P/E ratio.

**Required:**

**(i)** What would be the market price per share following the stock repurchase? **05**

**(ii)** Will the market price per share change, if the company pays out the funds through cash dividends instead of repurchase? **02**

**(b)** National Spices Ltd., has the following shareholders' equity account:

| | **Rupees** |
|---|---:|
| Share capital (Rs. 10 per share) | 4,000,000 |
| Share premium | 3,200,000 |
| Retained earnings | 16,800,000 |
| Shareholders' equity | 24,000,000 |

The current market price of a share is Rs. 60 per share.

**Required:**

**(i)** What will happen to shareholders' equity account and to the number of shares outstanding with 20% "small-percentage" stock dividend? **03**

**(ii)** What should be the per share market price after the 20% stock dividend in the absence of an informational or signaling effect? **01**

**(c)** Gamma Limited, a company in pharmaceutical business and its stock trades at Rs. 125 a share. The company has performed extremely well over the years and the market price of its shares has also substantially increased. The company is contemplating a 5-for-1 stock split to expand its shareholders' base. The stock split will have no effect on the total market value of its equity.

After a 5-for-1 stock split, the Gamma Limited paid a dividend of Rs. 1.50 per share which represents a 9% increase over last year's pre-split dividend.

**Required:**

**(i)** What will be the company's stock price following the stock split? **01**

**(ii)** What was last year's dividend per share? **03**

**Q. 4** The board of directors of Omega Ltd., is considering to expand the company's production capacity in order to meet the increased demand of its split air-conditioners. The feasibility study shows that company would be able to generate an additional annual income of Rs. 1,200,000 to perpetuity but it will have to raise new capital of Rs. 5,000,000 to finance the expansion.

The managing director of Omega Ltd., has recently learned in a seminar that the debt is cheaper than equity and the shareholders would be financially better off if the firms use some debt. So, he suggested that the company should raise the requisite funds through borrowings. Mr Shamsi, the CFO, agrees with the managing director but states that the increase in the debt element of the company's capital structure would lead to a higher level of financial risk. He expects that the required return on the company's equity capital would rise from 19% to 20%. The required return on debt capital would remain constant at 9%.

Mr Shamsi further proposes that the expansion should be financed by a mix of debt and equity so that the gearing of the company does not increase and debt-equity ratio remains at its current level even after the investment for expansion has been undertaken. The company has Rs. 36,000,000 of equity capital and Rs. 24,000,000 of debt capital in issue at current market prices.

**Required:**

**(a)** Calculate the increase in the value of equity shares if the expansion is wholly financed by debt capital as proposed by the managing director. **04**

**(b)** How would the new capital for expansion be raised and what would be the increase in the value of equity shares if the expansion is financed through mix of debt and equity? **08**

**(c)** Which means of financing should be preferred if Omega Ltd.'s objective is to maximize the wealth of its shareholders? **03**

Marks

**Q. 5 (a)** Pizza Palace runs a chain of fast food outlets in the city. The company is comparatively new in the business but has captured the market share due to its quality food at competitive prices and excellent customer services. Being a fast growing company, it intends to expand its operations. The marketing director has identified six possible outlets, but the company has only total funds of Rs. 12.40 million at its disposal. The projects are divisible and may not be postponed until a future period. After the projects end, it is unlikely that similar investment opportunities will occur.

The expected net cash inflows including salvage value are as under:

Rs. in million

| Project | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 | Initial Outlay |
|---|---|---|---|---|---|---|
| **U** | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 | 4.92 |
| **V** | 1.50 | 1.74 | 1.28 | – | – | 3.60 |
| **W** | 0.96 | 0.96 | 1.26 | 1.46 | – | 3.50 |
| **X** | 1.24 | 1.24 | 1.24 | 1.24 | – | 3.60 |
| **Y** | 0.80 | 1.00 | 1.20 | 1.40 | 0.80 | 3.60 |
| **Z** | 0.70 | 1.64 | 1.64 | – | – | 3.00 |

All projects are independent and believed to be of similar risk to the company's existing capital investments. Pizza Palace's weighted average cost of capital (WACC) is 12% per annum.

**Required:**

**(i)** Calculate the net present value (NPV) and profitability index of each of the six projects. **12**

**(ii)** Rank the projects according to both of these investment appraisal methods. Explain briefly why these rankings differ. **02**

**(iii)** Which projects would you recommend to the company to undertake? What would be the financial outcome of your recommendations? **06**

**(b)** Health Care Ltd., opened a swimming club in the vicinity of Karachi last year. The club has gained popularity among its members and enjoyed a good deal of business during the year. The managing director of the club believes that additional membership of the club will be stimulated by providing a gymnasium as part of the facilities at the club.

The expansion project would require an initial expenditure of Rs. 1,100,000. The project is expected to have a disposal value at the end of 5 years which is equal to 10% of the initial expenditure. The following schedule reflects a recent market research survey regarding the estimated annual sales revenue from additional memberships over the project's five-year life:

| Level of demand | Rs. '000' | Probability |
|---|---|---|
| High | 1,600 | 0.25 |
| Medium | 1,120 | 0.50 |
| Low | 896 | 0.25 |

- It is expected that the contribution to sales ratio will be 55%. Additional expenditure on fixed overheads is expected to be Rs. 180,000 per annum.
- Health Care Ltd., pays 35% tax on its profits. Tax is to be paid in two equal instalments – one in the year in which profit is earned and the other in the following year.
- You may assume that all cash flows occur at the end of each year and that the initial investment does not qualify for capital allowance. The company's cost of capital is 10%. Ignore inflation.

**Required:**

Evaluate the proposed expansion from a financial perspective. **10**

Marks

**Q. 6** Moon Ltd., is an established name in the beverage industry. The company manufactures and distributes variety of soft drinks, juices, jams, jellies across the country. The demand of company's products has substantially increased and it has become difficult to meet the demand without installing a new plant which may take two to three years before becoming fully operational. To overcome this capacity problem on war footings, the management of company is now considering the acquisition of Star Ltd., a company in the same industry, having surplus capacity. Financial information relating to Moon Ltd., and Star Ltd., is as follows:

**Statements of Consolidated Income**
**for the year ended June 30, 2013**

Rs. in million

| | Moon Ltd. | Star Ltd. |
|---|---|---|
| Revenue | 2,408 | 1,618 |
| Earnings before interests and taxes (EBIT) | 313 | 168 |
| Interest | 190 | 76 |
| Earnings before tax (EBT) | 123 | 92 |
| Tax @ 35% | 43 | 32 |
| EAT | 80 | 60 |

**Statement of Financial Position**
**as at June 30, 2013**

Rs. in million

| | Moon Ltd. | Star Ltd. |
|---|---|---|
| Non-current assets | 1,010 | 572 |
| Net current assets | 248 | 164 |
| | **1,258** | **736** |
| Long-term debt | 92 | 62 |
| Shares capital ( Rs. 10 par) | 800 | 240 |
| Retained earnings | 366 | 434 |
| | **1,258** | **736** |
| Price earnings ratio prior to bid | 18 | 14 |

Moon Ltd., has offered the shareholders of Star Ltd., four shares in Moon Ltd., for every three shares they held. It is expected that after-tax savings of Rs. 30 million would be achieved in overheads from the acquisition of Star Ltd.

**Required:**

**(a)** Calculate the total value of the proposed bid and number of new shares of Moon Ltd., to be issued. **06**

**(b)** What will be the share price of Moon Ltd., following the takeover, assuming that the price earnings ratio is maintained and the savings are achieved? **04**

**(c)** Calculate the effect of the proposed acquisition from the perspective of a shareholder who holds 5,000 ordinary shares each in Moon Ltd., and Star Ltd. **02**

**(d)** Comment on the two assumptions underlying the acquisition of Star Ltd. Would you advise the directors of Star Ltd., to accept the bid? **03**

**THE END**

| PRESENT VALUE FACTORS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | **9%** | **10%** | **11%** | **12%** | **13%** | **14%** | **15%** | **16%** | **17%** | **18%** | **19%** | **20%** |
| **1** | 0.917 | 0.909 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| **2** | 0.842 | 0.826 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 |
| **3** | 0.772 | 0.751 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 |
| **4** | 0.708 | 0.683 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 |
| **5** | 0.650 | 0.621 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 |
| **6** | 0.596 | 0.564 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 |
| **7** | 0.547 | 0.513 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 |
| **8** | 0.502 | 0.467 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 |
| **9** | 0.460 | 0.424 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 |
| **10** | 0.422 | 0.386 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 |

| CUMULATIVE PRESENT VALUE FACTORS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | **9%** | **10%** | **11%** | **12%** | **13%** | **14%** | **15%** | **16%** | **17%** | **18%** | **19%** | **20%** |
| **1** | 0.917 | 0.909 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| **2** | 1.759 | 1.736 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 |
| **3** | 2.531 | 2.487 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 |
| **4** | 3.240 | 3.170 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 |
| **5** | 3.890 | 3.791 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 |
| **6** | 4.486 | 4.355 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 |
| **7** | 5.033 | 4.868 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 |
| **8** | 5.535 | 5.335 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 |
| **9** | 5.995 | 5.759 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 |
| **10** | 6.418 | 6.145 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 |