# UNIVERSITY OF COLOMBO, SRI LANKA 

## FACULTY OF MANAGEMENT AND FINANCE

## Bachelor of Business Administration (Level II - Semester VII) Examination July 2018

## FIN 2201 - Financial Reporting and Analysis

Two (02) Hours

Answer ALL Questions

## Instructions to candidates:

1. The use of calculators is permitted
2. Time value of money tables are provided.

## 1.

i. Strategy analysis is one of the main pillars of financial statements analysis. Briefly explain the components of strategy analysis.
ii. The Statement of Cash Flow is useful in assessing the future expansion capacity and capital requirements of a company. However, it contains certain limitations as well. Describe three limitations of cash flow reporting.
(06 Marks)
iii. The following information is extracted from the books of Coco PLC.

| Financial year-end | $31 / 03 / 2017$ | $\mathbf{3 1 / 0 3 / 2 0 1 8}$ |
| :--- | :---: | :---: |
| Earnings available to common <br> shareholders (Rs.) | 650,000 | 800,000 |
| Reserves (Rs.) | 750,000 | 900,000 |
| Sales (Rs.) | 995,790 | $1,155,000$ |

There were 1.2 million Rs. 1 worth shures outstanding at the end of the financial year 2017 (i.e $31 / 03 / 2017$ ) at Coco PLC. The management of the company made a bonus issue of one new share for every three existing shares on 01 October, 2017.
a. Calculate the basic earnings per share (EPS) figure of financial year 2017 as it would appear in the financial year 2018.
b. The management of Coco PLC is expecting to achieve a sales target of Rs 1.5 million at end of next financial year (i.e. 31/03/2019) with a target dividendpayout ratio of 28 percent. Advise the management of Coco PLC regarding the possibility of achieving this sales target.
(06 Marks)
(Total 25 marks)
2.
i. The ability to convert assets into casi quickly and easily can be considered as liquidity. Briefly explain three difficulties a company has to face due to lack of liquidity.
(06 Marks)
ii. Argenti's A Score model identifies three main mistakes that can be occurred due to management weaknesses and accounting deficiencies. Briefly explain those three main mistakes identified in the A Score model.
(06 Marks)
iii. The Research Division of Star PLC has forecasted following figures for the year ended 31 March 2019.

| Gross profit margin | $45 \%$ |
| :--- | :---: |
| Net profit margin | $5.5 \%$ |
| Sales | Rs. $4,554,000$ |
| Financial leverage | 1.6 |
| Asset turnover | 2.3 |
| Dividend-payout ratio | $45 \%$ |

a. The board of directors of Star PLC wants to know the maximum possible growth that the company can achieve in the next financial year based on the projections of the research division. Further, above projections are made assuming no external financing of any kind will be taking place during the next financial year. You are as the Finance Director of Star PLC, advise the board of directors regarding the maximum growth rate that the company can achieve in the next financial year.
(07Marks)
b. During the last year's Annual General Meeting, the shareholders of the company complained the board of directors that Star PLC is generating relatively lower return for the equity holders compared to the other companies in the same industry. Hence, they demanded at least $20 \%$ return on their equity in the next financial year (i.e.2019). Based on the financial projections of the research division, evaluate the capability of achieving the minimum return requirement of the shareholders of Star PLC in the next financial year.
(06 Marks)
(Total 25 marks)
3. Prime PLC is considering making an offer to purchase Land PLC. The Chief Financial Officer of Prime PLC has collected the following information.

|  | Prime PLC | Land PLC |
| :--- | :---: | :---: |
| Price-earnings (P/E) ratio | 12.5 | 6 |
| Shares outstanding | $1,500,000$ | 850,000 |
| Earnings after tax (Rs.) | $4,200,000$ | $1,275,000$ |
| Total dividends (Rs.) | $1,000,000$ | 510,000 |

The Chief Financial Officer of Prime PLC was also informed by the research division of the company that the dividends of Land PLC are expected to grow at a constant rate of 4 percent each year. Prime PLC also believes that the acquisition will lead to generate economies of scale so that the dividend growth rate of Land PLC will increase to 5 . percent.
i. Calculate the current market price per share of Prime PLC and Land PLC.
ii. Calculate the minimum value expected by the shareholders of Land PLC. (02 Marks)
iii. Calculate the value of Land PLC to Prime PLC (Hint: Use the dividend valuation model to determine the cost of equity of Land PLC with the growth rate of dividends before the acquisition and then determine the market value of the firm with the growth rate of dividends after the acquisition.)
(07 Marks)
iv. Calculate the value of maximum premium that Prime PLC would willing to offer for the shares of Land PLC.
(02 Marks)
v. Calculate the combine value of the firm if Prime PLC decided to acquire Land PLC
(03 Marks)
vi. Assume Prime PLC has decided to pay Rs. 10 million as the purchase consideration to acquire Land PLC.
a. Calculate the NPV of the acquisition to Prime PLC...
(05 Marks)
b. Calculate the value of Prime PLC after the acquisition.
(02 Marks)
c. State with reasons whether it is beneficial for Prime PLC to proceed with this acquisition decision.
(02 Marks)
(Total 25 Marks)
i. Briefly explain any three factors that should be taken into consideration when choosing a financing method.
(06 Marks)
ii. Consider a firm, Home Movers, wishes to acquire a delivery truck. The truck is expected to reduce the operating costs of the company by Rs, 450,000 per year. The truck costs Rs. $2,500,000$ and has useful life of five (05) years. If the firm buys the truck, it will depreciate the truck on straight-line basis to zero and it can obtain a loan at an after tax rate of $5 \%$ to buy the truck.

Alternatively, Home Movers also can lease the truck for five (05) years through an operating lease from Auto Leasing with an annual lease payment of Rs. 625,000 which has to be made at the end of each year.

Home Movers is in the $34 \%$ tax bracket.
a. Using NPV analysis of the leasing instead of buying technique, analyse whether it is beneficial for Home Movers to choose lease option to acquire this truck.
(10 Marks)
b. Suppose Home Movers is actually in the $25 \%$ tax bracket and Auto Leasing is in the $34 \%$ tax bracket. If Auto Leasing reduces the annual lease payment to Rs. 620,000 , suggest whether it is possible to arrange a lease agreement between Home Movers and Auto Leasing.
(Total 25 Marks)

Present value of 1 i.e. $(1+r)^{m}$

Where $\quad$| r | $=$ discount rate |
| ---: | :--- |
| n | $=$ number of periods until payment |

Discount rate (1)

| Periods <br> $(\mathrm{n})$ | $1 \%$ | $2 \%$ | $3 \%$ | $4 \%$ | $5 \%$ | $6 \%$ | $7 \%$ | $8 \%$ | $9 \%$ | $10 \%$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 0.990 | 0.980 | 0.971 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 | 1 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 2 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 3 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 4 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 6 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 7 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 8 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 9 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 | 10 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 | 11 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 | 12 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 | 13 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 | 14 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 | 15 |


| $(\mathrm{n})$ | $11 \%$ | $12 \%$ | $13 \%$ | $14 \%$ | $15 \%$ | $16 \%$ | $17 \%$ | $18 \%$ | $19 \%$ | $20 \%$ |  |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 | 1 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 | 2 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 | 3 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 | 4 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 | 6 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 | 7 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 | 8 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 | 9 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 | 10 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 | 11 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 | 12 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 | 13 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 | 14 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 | 15 |

## Annuity Table

Present value of an annuity of 1 i.e. $\frac{L-11-20}{t}$

Where | $\quad r$ | $=$ discount rate |
| ---: | :--- |
|  | $n=$ number of periods |

Discount rale (t)
Periocs

| ( $n$ ) | 1\% | 2\% | 3\% | 4\% | 5\% | 6\% | 7\% | 8\% | 9\% | 10\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.990 | 0.980 | 0.971 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 | 1 |
| 2 | 1.970 | 1942 | 1.913 | 1886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 | 2 |
| 3 | 2.941 | 2.884 | 2.82 | \% $\because$ | $\therefore 3$ | 2673 | 2.624 | 2.577 | 2.531 | 2.487 | 3 |
| 4 | 3.002 | 3808 | 3717 | उ\% | 36 | 3.465 | 3.387 | 3312 | 3240 | 3.170 | 4 |
| 5 | 4.85\% | 4.713 | 4.580 | 4.452 | 4.239 | 4212 | 4.100 | 3.993 | $3 \cdot 890$ | 3791 | 5 |
| 6 | 5.795 | 5601 | 5417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 | 6 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 7 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 8 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | $7 \cdot 108$ | 6802 | 6.515 | 6247 | 5.995 | 5.759 | 9 |
| 10 | 9.471 | 8.983 | 8530 | 8111 | 7722 | 7360 | 7.024 | 6.710 | 6.418 | 6145 | 10 |
| 11 | $10 \cdot 368$ | 9.787 | 9253 | 8.760 | $8 \cdot 300$ | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 11 |
| 12 | 11.255 | 10.575 | 9.954 | 9385 | 88663 | 8.384 | 7.943 | 7.536 | $7 \cdot 161$ | 6.814 | 12 |
| 13 | $12 \cdot 134$ | 11.348 | 10.635 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | $7 \cdot 103$ | 13 |
| 14 | 13.004 | 12:106 | 11.296 | 10563 | 9.899 | 9.295 | 8745 | 8.244 | 7.786 | 7.367 | 14 |
| 15 | 13.865 | 12.849 | 11.938 | :1.118 | 10.380 | 9.712 | $9 \cdot 108$ | 8559 | 8.061 | 7606 | 15 |
| ( ${ }^{\text {a }}$ | 11\% | 12\% | 13\% | 14\% | 15\% | 16\% | 17\% | 18\% | 19\% | 20\% |  |
| 1 | 0.901 | 0893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 | 1 |
| 2 | 1.713 | 1.690 | 1.668 | 1647 | 1006 | 1605 | 1.585 | 1.566 | 1.547 | 1.528 | 2 |
| 3 | 2.444 | 2.402 | 2362 | 29\% | 2.283 | 2.246 | 2210 | 2174 | 2.140 | $2 \cdot 106$ | 3 |
| 4 | 3.102 | 3.037 | 2.974 | $2 \cdot 914$ | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 | 4 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3127 | 3058 | 2991 | 5 |
| 6 | 4.231 | 4.111 | 3998 | 3889 | 3784 | 3683 | $3 \cdot 589$ | 3.498 | 3.410 | 3-326 | 6 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3605 | 7 |
| 8 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 | 8 |
| 9 | 5.537 | 5.328 | 5132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4:63 | 4.031 | 9 |
| 10 | 5.889 | 5.650 | 5.426 | 5.216 | 5019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 | 10 |
| 11 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 | 11 |
| 12 | 6.492 | 6.194 | 5.918 | 5660 | 5.421 | $5 \cdot 197$ | 4.988 | 4.793 | 4.611 | 4.439 | 12 |
| 13 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4533 | 13 |
| 14 | 6.982 | 6.628 | $6 \cdot 302$ | 6.002 | 5.724 | 5.468 | 5.229 | 5008 | 4.802 | 4.611 | 14 |
| 15 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 | 15 |

