

THE OPEN UNIVERSITY OF SRI LANKA
 DEPARTMENT OF TEXTILE AND APPAREL TECHNOLOGY
 POSTGRADUATE DIPLOMA IN TECHNOLOGY IN APPAREL
 PRODUCTION AND MANAGEMENT
 FINAL EXAMINATION 2016/2017
 TTM7135 – MANAGERIAL ACCOUNTING AND FINANCIAL MANAGEMENT
 DURATION -THREE (03) HOURS



Date: 05th December 2017

Time: 0930 – 1230 hours

*Instructions: This paper consists of seven (07) Questions, carries 20 marks each.
 You should answer only five (05) questions, totalling to 100 marks.
 The numbering of the answer in your answer script should follow the numbers assigned to the questions in the paper.
 The illegible handwriting is liable to decrease marks.
 Begin each answer on a new page.
 Use of Non-programmable calculator is allowed.*

Question No (01)

- I. What do you understand the term “Accounting”? (02 Marks)
- II. Differentiate term “Assets” from the term “Liabilities” in relations to a business firm. Use appropriate example for clarification. (03 Marks)
- III. Wajira Caters is a small size enterprise who produces bakery products. The firm had not maintained proper accounting system during the year 2016-2017. But the owner knows that profit is the difference between the Opening net assets and Closing net assets of a business in any given year. So Mr. Wajira found the following information and provided to you.
 - ✓ Capital as at 01.04.2016 Rs.120,000.00
 - ✓ Re-invested capital during the year Rs.400,000.00
 - ✓ Drawing during the year Rs.45,000.00
 - ✓ Capital as at 31.03.2017 Rs.645,000.00

You are required to calculate the profit or loss of the business for the year 2016-2017.

(10 Marks)

- IV. State whether each of the following is “True” or “False”.
 - i. Accounting is restricted only to large-scale business.

- ii. The transactions and events relevant to a business firm which is run by a single owner should be accounted from the owner's point of view.
- iii. All the transactions of a business firm should have impact on two sides of the "Accounting Equation".
- iv. Increasing assets and increasing liability are the impacts on the accounting equation when a fixed asset is purchased on credit basis.
- v. Every transactions and events related to a business can be measured in monetary terms.

(05 Marks)

Question No (02)

Mr. Perera commenced a service business on 01st June 2017. The transactions that took place in the month of June are presented in accounting equation form as follows.

| No | Cash + (Rs) | Debtors + (Rs) | Office Stationary + (Rs) | Furniture = (Rs) | Creditors + (Rs) | Capital (Rs) |
|----|----------------|-------------------|-----------------------------|---------------------|---------------------|-----------------|
| 1 | +2,500,000 | | | | +900,000 | +1600,000 |
| 2 | -200,000 | | +350,000 | | +150,000 | |
| 3 | -160,000 | | | +160,000 | | |
| 4 | +60,000 | +150,000 | | | | +210,000 |
| 5 | -85,000 | | | | | -85,000 |
| 6 | -100,000 | | | | -100,000 | |
| 7 | | | -15,000 | | | -15,000 |
| 8 | -75,000 | | | | | -75,000 |
| 9 | -32,000 | | +32,000 | | | |
| 10 | +25,000 | -25,000 | | | | |

- I. You are required to describe each transaction together with their associated amounts. (10 Marks)
- II. Prepare the statement of financial position as at 30th June 2017. (10 Marks)

Question No (03)

- I. Explain the four key financial management decisions that the financial manager has to deal with in today's business organizations? (12 Marks)

II. "Maximization of Shareholders' Wealth is the most prudent objective of business organization than profit maximization"

- i. Identify the different objectives of a business organization. (04 Marks)
- ii. Do you agree with the above statement? Briefly explain with reasons. (04 Marks)

Question No (04)

- I. (i) What is meant by Cost Volume Profit (CVP) Analysis? Briefly explain. (04 Marks)
- (ii) Why do business managers use CVP Analysis? (04 Marks)

II. A company is planning to introduce a new product to the market. Following is the cost estimated for manufacturing and selling of this new product during the next month of the financial year.

| | Rs. (Per unit) |
|---|----------------|
| Selling Price | 120/= |
| Variable Cost - Direct Material | 60/= |
| - Direct Labour | 40/= |
| Fixed Manufacturing cost | Rs. 350,000/= |
| Fixed Selling and Distribution Expenses | Rs. 100,000/= |

You are required to calculate following for the next month of the financial year. Clearly provide any assumptions made by you if required, in calculating the same.

- i. Contribution to Sales (C/S) Ratio.
- ii. Break-Even-Point (BEP) in Units and Value.
- iii. Units of this product that will have to be sold in next month, to earn a target profit of Rs.78,000/=.
- iv. The break-even quantity and the quantity to be sold to earn a target profit of Rs.86,000/= in the next month under each of the following circumstances.
 - i. A discount of 10% is received from the material supplier.

- ii. A motor vehicle must be hired at a fixed payment of Rs.60,000/= as a rental for the next month to distribute the products.

(Assume above two circumstances are mutually exclusive) (12 Marks)

Question No (05)

- I. A factory manufactures 1,000 units of a product "X" for local consumption. Following are the cost details related to the production.

| | | | Costs (Rs.) |
|------------------------------|----------|-----------|-------------|
| Direct Materials | | | 40,000.00 |
| Direct Labour | | | 36,000.00 |
| Factory Overhead | Fixed | 12,000.00 | |
| | Variable | 20,000.00 | 32,000.00 |
| Administrative Overhead | Fixed | 10,000.00 | |
| | Variable | 16,000.00 | 26,000.00 |
| Total Cost of the Production | | | 134,000.00 |

At the domestic market, it can be sold maximum 1,000 units at a selling price of Rs.155/= per unit. However, the foreign market for this product can have 4,000 units demand if a unit price reduced to Rs.125/=, A customer in a foreign market have to make a special order of 4,000 units.

Is the order from the foreign customer worthy? Justify your answer with relevant calculation.

(10 Marks)

- II. (i) What are the reasons that determine the time value of money? (05 Marks)
- (ii) If Rs.200,000/= was invested in an account at an interest rate of 12% p.a. compound annually, how much money will be in the account after 4 years?

(05 Marks)

Question No (06)

- a) A Trustworthy friend of you obtained Rs.100,000/= from you and request you to consider obtaining cash back within one week or after the lapse of 6 months. Which option do you prefer? Briefly explain with reasons.

(04 Marks)

- b) MAS Ltd is a Group of companies in the garment industry. Sew Well Ltd is a subsidiary company which produces threads to MAS group, is considering to acquire a new machine. Following information related proposed acquisition.

| | |
|-------------------------------|---------|
| Capital expenditure (Rs.'000) | 100,000 |
| Net Cash inflows (Rs.'000) | |
| Years 1 | 30,000 |
| Years 2 | 60,000 |
| Years 3 | 40,000 |
| Years 4 | 20,000 |

- i. You are required to calculate payback period of the proposed acquisition. (06 Marks)
- ii. If the required rate of the return of the Sew Well Ltd is 12%, calculate the Net Present Value (NPV) and the Internal Rate of Return (IRR) of the proposed acquisition. (10 Marks)

Question No (07)

- I. How do you distinguish investment in shares and Government Bonds? (05 Marks)
- II. Can a primary dealer earn undue profit from Government Bonds? How such a thing can be possible? Briefly explain using a Sri Lankan example. (05 Marks)
- III. The dividend on Max Company Plc's ordinary share will be Rs.3/= in the 1st year, Rs.5/= in the 2nd year, and Rs. 7/= in the 3rd year. The share can be sold for Rs.100/= at the end of the 3rd year. If investor's required rate of return is 10%, calculate the present value of this share. (05 Marks)
- IV. An investor name PTL willing to invest in a government bond with a face value of Rs.1000/= at an annual coupon rate of 11% for matures in 30 years.
What will be the value of the bond, if the investor's required rate of return is 08%?
(Valuation the above bond can be done using following formula)
Note : Value = Interest $[1 - 1/(1.08)^{30}] / 0.08 + [1000/(1.08)^{30}]$ (05 Marks)

Copy Right Reserved

00006

PRESENT VALUE TABLE

Present value of \$1, that is $(1+r)^{-n}$ where r = interest rate; n = number of periods until payment or receipt.

| Periods (n) | Interest rates (r) | | | | | | | | | |
|--------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 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 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 |
| 16 | 0.853 | 0.728 | 0.623 | 0.534 | 0.458 | 0.394 | 0.339 | 0.292 | 0.252 | 0.218 |
| 17 | 0.844 | 0.714 | 0.605 | 0.513 | 0.436 | 0.371 | 0.317 | 0.270 | 0.231 | 0.198 |
| 18 | 0.836 | 0.700 | 0.587 | 0.494 | 0.416 | 0.350 | 0.296 | 0.250 | 0.212 | 0.180 |
| 19 | 0.828 | 0.686 | 0.570 | 0.475 | 0.396 | 0.331 | 0.277 | 0.232 | 0.194 | 0.164 |
| 20 | 0.820 | 0.673 | 0.554 | 0.456 | 0.377 | 0.312 | 0.258 | 0.215 | 0.178 | 0.149 |

| Periods (n) | Interest rates (r) | | | | | | | | | |
|--------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 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 |
| 2 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 |
| 3 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 |
| 4 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 |
| 5 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 |
| 6 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 |
| 7 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 |
| 8 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 |
| 9 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 |
| 10 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 |
| 11 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 |
| 12 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 |
| 13 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 |
| 14 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 |
| 15 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.079 | 0.065 |
| 16 | 0.188 | 0.163 | 0.141 | 0.123 | 0.107 | 0.093 | 0.081 | 0.071 | 0.062 | 0.054 |
| 17 | 0.170 | 0.146 | 0.125 | 0.108 | 0.093 | 0.080 | 0.069 | 0.060 | 0.052 | 0.045 |
| 18 | 0.153 | 0.130 | 0.111 | 0.095 | 0.081 | 0.069 | 0.059 | 0.051 | 0.044 | 0.038 |
| 19 | 0.138 | 0.116 | 0.098 | 0.083 | 0.070 | 0.060 | 0.051 | 0.043 | 0.037 | 0.031 |
| 20 | 0.124 | 0.104 | 0.087 | 0.073 | 0.061 | 0.051 | 0.043 | 0.037 | 0.031 | 0.026 |

Cumulative present value of \$1 per annum, Receivable or Payable at the end of each year for n years $\frac{1-(1+r)^{-n}}{r}$

| Periods (n) | Interest rates (r) | | | | | | | | | |
|----------------|--------------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| | 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 |
| 2 | 1.970 | 1.942 | 1.913 | 1.886 | 1.859 | 1.833 | 1.808 | 1.783 | 1.759 | 1.736 |
| 3 | 2.941 | 2.884 | 2.829 | 2.775 | 2.723 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 |
| 4 | 3.902 | 3.808 | 3.717 | 3.630 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 |
| 5 | 4.853 | 4.713 | 4.580 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 |
| 6 | 5.795 | 5.601 | 5.417 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.486 | 4.355 |
| 7 | 6.728 | 6.472 | 6.230 | 6.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 |
| 8 | 7.652 | 7.325 | 7.020 | 6.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 |
| 9 | 8.566 | 8.162 | 7.786 | 7.435 | 7.108 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 |
| 10 | 9.471 | 8.983 | 8.530 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 |
| 11 | 10.368 | 9.787 | 9.253 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 |
| 12 | 11.255 | 10.575 | 9.954 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 |
| 13 | 12.134 | 11.348 | 10.635 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 |
| 14 | 13.004 | 12.106 | 11.296 | 10.563 | 9.899 | 9.295 | 8.745 | 8.244 | 7.786 | 7.367 |
| 15 | 13.865 | 12.849 | 11.938 | 11.118 | 10.380 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 |
| 16 | 14.718 | 13.578 | 12.561 | 11.652 | 10.838 | 10.106 | 9.447 | 8.851 | 8.313 | 7.824 |
| 17 | 15.562 | 14.292 | 13.166 | 12.166 | 11.274 | 10.477 | 9.763 | 9.122 | 8.544 | 8.022 |
| 18 | 16.398 | 14.992 | 13.754 | 12.659 | 11.690 | 10.828 | 10.059 | 9.372 | 8.756 | 8.201 |
| 19 | 17.226 | 15.679 | 14.324 | 13.134 | 12.085 | 11.158 | 10.336 | 9.604 | 8.950 | 8.365 |
| 20 | 18.046 | 16.351 | 14.878 | 13.590 | 12.462 | 11.470 | 10.594 | 9.818 | 9.129 | 8.514 |

| Periods (n) | Interest rates (r) | | | | | | | | | |
|----------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 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 |
| 2 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 |
| 3 | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 |
| 4 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 |
| 5 | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 |
| 6 | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 |
| 7 | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 |
| 8 | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 |
| 9 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 |
| 10 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 |
| 11 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 |
| 12 | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 |
| 13 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 |
| 14 | 6.982 | 6.628 | 6.302 | 6.002 | 5.724 | 5.468 | 5.229 | 5.008 | 4.802 | 4.611 |
| 15 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 |
| 16 | 7.379 | 6.974 | 6.604 | 6.265 | 5.954 | 5.668 | 5.405 | 5.162 | 4.938 | 4.730 |
| 17 | 7.549 | 7.120 | 6.729 | 6.373 | 6.047 | 5.749 | 5.475 | 5.222 | 4.990 | 4.775 |
| 18 | 7.702 | 7.250 | 6.840 | 6.467 | 6.128 | 5.818 | 5.534 | 5.273 | 5.033 | 4.812 |
| 19 | 7.839 | 7.366 | 6.938 | 6.550 | 6.198 | 5.877 | 5.584 | 5.316 | 5.070 | 4.843 |
| 20 | 7.963 | 7.469 | 7.025 | 6.623 | 6.259 | 5.929 | 5.628 | 5.353 | 5.101 | 4.870 |

FORMULAE

PROBABILITY

$A \cup B = A \text{ or } B.$ $A \cap B = A \text{ and } B \text{ (overlap).}$

$P(B | A)$ = probability of B, given A.

Rules of Addition

If A and B are mutually exclusive: $P(A \cup B) = P(A) + P(B)$

If A and B are not mutually exclusive: $P(A \cup B) = P(A) + P(B) - P(A \cap B)$

Rules of Multiplication

If A and B are independent: $P(A \cap B) = P(A) * P(B)$

If A and B are not independent: $P(A \cap B) = P(A) * P(B | A)$

$E(X) = \sum (\text{probability} * \text{payoff})$

DESCRIPTIVE STATISTICS

Arithmetic Mean

$$\bar{x} = \frac{\sum x}{n} \quad \bar{x} = \frac{\sum fx}{\sum f} \quad (\text{frequency distribution})$$

Standard Deviation

$$SD = \sqrt{\frac{\sum (x - \bar{x})^2}{n}} \quad SD = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2} \quad (\text{frequency distribution})$$

INDEX NUMBERS

Price relative = $100 * P_1/P_0$

Quantity relative = $100 * Q_1/Q_0$

Price:
$$\frac{\sum w * \left(\frac{P_1}{P_0}\right)}{\sum w} * 100$$

Quantity:
$$\frac{\sum w * \left(\frac{Q_1}{Q_0}\right)}{\sum w} * 100$$

TIME SERIES

Additive Model

Series = Trend + Seasonal + Random

Multiplicative Model

Series = Trend * Seasonal * Random

FINANCIAL MATHEMATICS**Compound Interest (Values and Sums)**

Future Value S , of a sum of X , invested for n periods, compounded at $r\%$ interest

$$S = X[1 + r]^n$$

Annuity

Present value of an annuity of £1 per annum receivable or payable for n years, commencing in one year, discounted at $r\%$ per annum:

$$PV = \frac{1}{r} \left[1 - \frac{1}{[1 + r]^n} \right]$$

Perpetuity

Present value of £1 per annum, payable or receivable in perpetuity, commencing in one year, discounted at $r\%$ per annum:

$$PV = \frac{1}{r}$$

LEARNING CURVE

$$Y_x = aX^b$$

where:

Y_x = the cumulative average time per unit to produce X units;

a = the time required to produce the first unit of output;

X = the cumulative number of units;

b = the index of learning!

The exponent b is defined as the log of the learning curve improvement rate divided by log 2.

INVENTORY MANAGEMENT

Economic Order Quantity

$$EOQ = \sqrt{\frac{2C_o D}{C_h}}$$

where: C_o = cost of placing an order

C_h = cost of holding one unit in Inventory for one year

D = annual demand