**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.**
**(For candidates admitted during the academic year 2015-16 and thereafter)**

**SUBJECT CODE: 15CM/AC/PF25**

**B.C.A. DEGREE EXAMINATION APRIL 2017**
**SECOND SEMESTER**

**COURSE : ALLIED – CORE**
**PAPER : PRINCIPLES OF FINANCIAL MANAGEMENT**
**TIME : 3 HOURS MAX. MARKS: 100**

## SECTION – A

**I. ANSWER ALL THE QUESTIONS (10 X 2 = 20)**

1. Define Financial Management.
2. What do you mean by risk?
3. Rs. 2,000 (Po) is deposited in a bank for two (n) years at simple interest of 6% (i). How much will be the balance at the end of 2 years?
4. What do you understand by time value of money?
5. Define the term working capital.
6. From the following information relating to X Ltd., calculate Operating cycle.

| | | |
|---|---|---|
| Stock holding: | Raw material | : 2 months |
| | W.I.P | : 15 days |
| | Finished goods | : 1 month |
| Average debt collection period | | : 2 months |
| Average payment period | | : 45 days. |

7. Ramani Ltd. has total sales revenue of Rs. 120 lakh a year, of which 75% are credit sales. The firm has an investment opportunity in the money market to earn a return of 18% p.a. If the firm could reduce its float by 3 days, what would be the annual savings for it?

8. Calculate optimum cash balance under Baumol model from the data given below:

| | |
|---|---|
| Monthly cash requirement | : Rs. 30,000 |
| Fixed cost per transaction | : Rs. 10 |
| Interest rate on marketable securities | : 20% p.a. |

9. What is capital budgeting?
10. A project has an initial investment of Rs. 2,00,000. It will produce cash flows after tax of Rs. 50,000 per annum for six years. Compute the payback period for the project.

## SECTION – B

**II. ANSWER ANY FIVE QUESTIONS (5 X 8 = 40)**

11. Explain the objectives of financial management.
12. Kanishgadevi has entered into an agreement that will fetch her Rs. 60,000 p.a. for the next 4 years. She wants to know the present value of the future cash inflows at 20% discount rate.

13. From the following estimate, calculate the average amount of working capital required:

| | P.a. (Rs.) |
|---|---|
| (a) Average amount locked-up in stocks: | |
| Stock of finished goods & W.I.P | 10,000 |
| Stock of stores, materials, etc | 8,000 |
| (b) Average Credit given: | |
| Local sales: 2 weeks credit | 1, 04,000 |
| Sales outside the state: 6 weeks credit | 3, 12,000 |
| (c) Time available for payment: | |
| For purchase: 4 weeks | 78,000 |
| For wages: 2 weeks | 2, 60,000 |

Add 10% to allow for contingencies.

14. Prepare a cash budget from the following information for the month of Feb.2016:

| | Rs. |
|---|---|
| Cash in hand on Feb. 1 | 10,000 |
| Sales for Jan. 2016 | 1,00,000 |
| Sales for Feb. 2016 | 1,50,000 |
| Purchases for Jan. 2016 | 50,000 |
| Purchases for Feb. 2016 | 70,000 |
| Operating expenses for Jan. 2016 | 10,000 |
| Operating expenses for Feb. 2016 | 20,000 |

Credit from suppliers – one month. Sales recovery 60% in the month of sale and the balance in the following month.

15. Using the information given below, compute the Pay-back period under
(a) Traditional Pay-Back method, and
(b) Discounted Pay-Back Method and comment on the results.

| | | |
|---|---|---|
| Initial Outlay | | Rs. 80,000 |
| Estimated Life | | 5 years |
| Profit after Tax | | |
| End of year | 1 | Rs. 6,000 |
| | 2 | Rs. 14, 000 |
| | 3 | Rs. 24,000 |
| | 4 | Rs. 16,000 |
| | 5 | NIL |

Depreciation has been calculated under straight line method. The cost of capital may be taken at 20% p.a. and the P.V. of Re. 1 at 20% p.a. is given below:

| Year | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| P.V. Factor | 0.83 | 0.69 | 0.58 | 0.48 | 0.40 |

16. Discuss the importance of capital budgeting.

17. X Ltd. is engaged in large scale customer retailing. You are required to forecast its working capital requirements from the following information.

| | |
|---|---|
| Projected annual sales | Rs. 9, 00,000 |
| Percentage of N.P to cost of sales | 20% |
| Average credit allowed to debtors | 1 month |
| Average credit allowed by creditors | 2.5months |
| Average stock carrying (in terms of sales requirements) | 2 months. |

Add 10% to allow for contingencies.

## SECTION – C

**III. ANSWER ANY TWO QUESTIONS (2 X 20 = 40)**

18. The expected cash inflows are as follows:

| Year | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Cash inflow (Rs.) | 3,000 | 4,500 | 6,000 | 8,000 | 10,000 |

Discount rate is 16%. Find out the present value of cash inflows using P.V. table.

19. From the following information, you are required to estimate the net working capital:

| | Cost per unit Rs. |
|---|---|
| Raw materials | 400 |
| Direct Labour | 150 |
| Overheads (excluding depreciation) | 300 |
| Total Cost | 850 |

Additional Information:

| | |
|---|---|
| Selling price | 1,000 per unit |
| Output | 52,000 units |
| Raw Material in stock | Average 4 weeks |
| Work-in-progress (assumed 50% completion stage with full material consumption) | Average 2 weeks |
| Finished goods in stock | Average 4 weeks |
| Credit allowed by suppliers | Average 4 weeks |
| Credit allowed to Debtors | Average 8 weeks |
| Cash at Bank is expected to be: | Rs. 50,000. |

Assume that production is sustained at an even pace during the 52 weeks of the year. All sales are on credit basis.

20. XYZ Company wishes to arrange O.D. facilities with its bankers during the period April – June, when it will be manufacturing mostly for stock.

(i) Prepare cash budget for the above period from the following data.

| Months | Sales Rs | Purchases Rs | Wages Rs |
|---|---|---|---|
| February | 1,80,000 | 1,24,800 | 12,000 |
| March | 1,92,000 | 1,44,000 | 14,000 |
| April | 1,08,000 | 2,43,000 | 11,000 |
| May | 1,74,000 | 2,46,000 | 10,000 |
| June | 1,26,000 | 2,68,000 | 15,000 |

(ii) 50% of credit sales is realized in the month following the sale and the other 50% in the second month following. Creditors are paid in the month following the month of purchase.

(iii) Wages are paid at the end of the respective month.

(iv) Cash at bank – 1$^{st}$ April – Rs. 25,000.

21. One plant of a company is doing poorly and is being considered for replacement. Three mutually exclusive plants X,Y and Z have been proposed. The plants are expected to cost Rs. 1,00,000 each and have an estimated life of 5 years, 4 years and 3 years respectively and have no salvage value. The company's required rate of return is 10%. The anticipated cash flows after tax for the three plants are as follows:

| Year | Plant X Rs. | Plant Y Rs. | Plant Z Rs. |
|---|---|---|---|
| 1 | 25,000 | 40,000 | 50,000 |
| 2 | 25,000 | 40,000 | 50,000 |
| 3 | 25,000 | 40,000 | 5,000 |
| 4 | 25,000 | 15,000 | - |
| 5 | 95,000 | - | - |

(i) Rank the proposals applying the methods of payback, ARR and NPV.
(ii) What would be the profitability index if the IRR equalled the return on investment? What is the significance of a profitability index less than one?
(iii) Recommend the project to be adopted and give reasons.

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