DR VN BRIMS, Thane
Programme: PGDM (2018-20) (Finance)
PGDM Trimester IV Examination September 2019

| Subject | Advanced Financial Management (AFM) |  |  |
| :--- | :--- | :--- | :--- |
| Roll No. | 7 | Marks | 60 Marks |
| Total No. of Questions | 7 | Duration | 3 Hours |
| Total No. of printed pages |  | Date |  |

Note: i) Q1 is compulsory and solve any FOUR from the remaining SIX questions.

## ii) PV Factor Table is attached at the end

Q1) 20 Marks (Compulsory) [15 + 5]
a) While preparing a project report on behalf of a client you have collected the following facts. Estimate the net working capital required for that project. Add 15 per cent to your computed figure to allow contingencies:

Amount per unit
Raw materials 60
Direct labour 40
Overhead 20
Total cost 120

Additional information:

1. Selling price, Rs. 150 per unit
2. Level of activity, $1,04,000$ units of production per annum
3. Raw materials in stock, average 2 weeks
4. Work in progress (assume 50 per cent completion stage in respect of conversion costs and 100 per cent completion in respect of materials), average 2 weeks
5. Finished goods in stock, average 3 weeks
6. Credit allowed by suppliers, average 4 weeks
7. Credit allowed to debtors, average 8 weeks (Out of total sales $1 / 4^{\text {th }}$ are on cash basis)
8. Lag in payment of wages, average 3 weeks
9. Cash at bank is expected to be, Rs. 50,000 .

You may assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All purchases are on credit basis only. [15 Marks]
b) The following information pertains to Pineapple Ltd.

Raw Material Holding Period = 30 Days
WIP Process period = 10 Days
Finished Goods Holding Period = 40 Days
Debtors' Collection Period = 20 Days
Creditors' Payment Period = 45 Days
Annual Operational Cash cost $=$ Rs.5,00,000
Calculate

1. Net Operating Cycle Period
2. No. of Operating Cycles in a year
3. Working capital requirement

## Attempt Any FOUR from the Remaining SIX Questions

## Q2) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks

a) Mr. X deposits Rs.10,000 every year for next 5 years @10\%p.a. The annual payment is made at the beginning of the year. Find FV of annuity and PV of annuity.
b) Mr. Amit bought a car Costing Rs 4,00,000 by making a down payment of Rs $1,00,000$ and agreeing to make equal annual payment for 4 year. How much would be each payment if the interest on unpaid amount be $12 \%$ Compounded annually?
c) Rs 5,000 is invested at annual rate of interest $8 \%$. What is the amount after two years if the compounding is done?
a) Semi-annually?
c) Quarterly

Q3) Any one from (a) or (b) —__ (10x1) = 10 Marks
a) Gamer Ltd. is examining two mutually exclusive investments. The management uses NPV method to evaluate new investment proposals. Depreciation is charged using SLM. Other details are follows:

| Particulars | Proposal X |  | Proposal Y |
| :--- | :---: | ---: | ---: |
| Annual Profit Before Tax | $1,50,000$ |  | $3,00,000$ |
| Cost of the project | $4,00,000$ |  | $10,00,000$ |
| Salvage Value | $1,00,000$ | $3,50,000$ |  |
| Working Life | 5 years | 5 years |  |
| Cost of Capital | $10 \%$ | $10 \%$ |  |
| Corporate Tax Rate | $30 \%$ | $30 \%$ |  |

Discount Rate = 10\%
You are required to advise the company on which proposal should be taken up by it.
b) S Ltd. has Rs.10,00,000 allocated for capital budgeting purposes. The following proposals and associated profitability indexes have been determined:

| Project | Cost of Project | Profitability Index |
| :--- | :--- | :---: |
|  | $3,00,000$ | 1.22 |
| 2 | $1,50,000$ | 0.95 |
| 3 | $3,50,000$ | 1.20 |
| 4 | $4,50,000$ | 1.18 |
| 5 | $2,00,000$ | 1.20 |
| 6 | $4,00,000$ | 1.05 |

Which of the above investments should be undertaken?
i) Assume that projects are indivisible and there is no alternative use of the money allocated for capital budgeting
ii) Assume that projects are divisible

## Q4) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks

a) The cash flows of projects A and B are reproduced below:

## Cash Flows

| Project | C0 | C1 | C2 | C3 |
| :--- | :--- | :--- | :--- | :--- |
| A | - Rs. 10,000 | $+2,000$ | $+4,000$ | $+12,000$ |
| B | - Rs. 10,000 | $+10,000$ | $+3,000$ | $+3,000$ |
|  |  |  |  |  |
| Project | NPV at $10 \%$ | IRR | MIRR |  |
| A | + Rs.4,139 | $26.5 \%$ | $13 \%$ |  |
| B | + Rs.3,823 | $37.6 \%$ | $12 \%$ |  |

(i) Why there is a conflict of rankings?
(ii) Why should you recommend project A in spite of lower internal rate of return?
b) What are the 3 major parts of cash flow statements \& what do they explain? which transactions are not recorded in the cash flow statements?
c) Calculate Present Value of Depreciation Tax shield using the following data:

Cost of Asset $=50,000$, Rate of Depreciation $=10 \%$ WDV, Life $=5$ years
Discount Rate $=8 \%$, Tax rate $=30 \%$

Q5) Any one from (a) or (b) ——_ (10x1) = 10 Marks
a) The marketing manager of $X Y$ Ltd is given a proposal to the Board of the Directors of the company that an increase in credit period allowed to customers from the present one month to two months will bring $25 \%$ increase in the sale volume in the next year.
The following operational data of the company for the current year are taken from the records of the company:

|  | $\frac{\text { Rs. }}{}$ |
| :--- | :--- |
| Selling price | 21 p.u. |
| Variable cost | 14 p.u |
| Total cost | 18 p.u. |
| Sales value | $18,90,000$ |

The Board, by forwarding above proposal and data requests you to give your experts opinion on the adoption of the new credit policy in next year subject to a condition that the company's required rate of return on investment is $20 \%$.
b) A company is presently having Total sales of Rs. 30 Lakh of which credit sales are $75 \%$. The existing credit terms are $1 / 10$, net 45 days and average collection period is 60 days. The current bad debts loss is $1.5 \%$.

In order to accelerate the collection process further as also to increase sales, the company is contemplating liberalization of its existing credit terms to $2 / 10$, net 45 days. It is expected that sales are likely to increase by $1 / 3$ of existing sales, bad debts increase to $2 \%$ of sales and average collection period to decline to 20 days. The contribution to sales ratio of the company is $22 \%$ and opportunity cost of investment in receivables is $15 \%$.
$50 \%$ and $80 \%$ of customers in terms of sales revenue are expected to avail cash discount under existing and liberalization scheme respectively. The tax rate is $30 \%$.
Should the company change its credit terms?

Q6) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks
a) Calculate the annual instalment of the loan \& divide it into Interest \& principal repayment parts based on the following data:
Loan amount: 20,00,000
Rate of interest: 15\%
Repayable in five equal instalments falling due at the end of each year.
b) MN Ltd. wishes to evaluate a machine 'M' costing Rs.2,00,000 and having an estimated life of 4 years. Calculate Payback Period \& Discounted Payback period (Discount Rate 7\%)

| Year | Cash Inflow |
| :--- | :--- |
| 1 | 70,000 |
| 2 | 80,000 |
| 3 | 90,000 |
| 4 | 60,000 |

c) If Lease rental per annum is Rs. $2,00,000$ \& the rentals are payable for 6 years at the end of the year. Calculate Present Value of Post-Tax Lease rentals assuming Tax Rate = $35 \%$ and Discount Rate $=8 \%$

Q7) Any two from (a) or (b) or (c) ——_ (5x2) = 10 Marks
a) What are credit related costs? Explain 4 credit related costs which are part of Receivables management.
b) Write a short note on IRR, Steps to calculate IRR \& its selection criteria
d) Distinguish between Operating Lease \& Financial Lease

|  | Discount Rate \& PVIF |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | 5\% | 6\% | 7\% | 8\% | 9\% | 10\% | 11\% | 12\% | 13\% | 14\% |
| 1 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 | 0.901 | 0.893 | 0.885 | 0.877 |
| 2 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 0.812 | 0.797 | 0.783 | 0.769 |
| 3 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 0.731 | 0.712 | 0.693 | 0.675 |
| 4 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 0.659 | 0.636 | 0.613 | 0.592 |
| 5 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 0.593 | 0.567 | 0.543 | 0.519 |
| 6 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 0.535 | 0.507 | 0.480 | 0.456 |

