# ACHARYA PATASHALA COLLEGE OF COMMERCE <br> Narasimharaja Colony, Bengaluru - 560019 

## III Semester B.Com Examination, November/December 2019

## Financial Management

Time: 3 Hours
Max. Marks: 70

## Section - A

Answer any five Sub-question. Each Sub question carries two marks ( 5 X $2=10$ )

## 1. a. What is Financial Planning?

Financial planning is a important part of financial management. It is the process of determining the objectives, policies, procedures, programs and budgets to deal with the financial activities of an enterprise. The activities of financial planning is to decide the course of action to be taken in future by the organization in respect to financial management.

## b. What is profit maximisation?

Earning profit by a company is a social obligation. Profit is the only mean through which an efficiency of an organization can be measured.

## c. Give the meaning of cash inflow.

Cash inflow is the net amount of cash and cash equivalent being transferred into and out of a business. At the most fundamental level, a company's ability to create value for shareholders is determined by its ability to generate positive cash flow.

## d. What are the four sources of working capital

1. Inventory 2. Cash and Bank balances 3. Creditors / account payable 4. Debtors / Accounts receivable

## e. What do you mean by dividend?

A company's dividend policy involves the decision of its net earnings into two parts, dividend and retained earnings. Thus, dividend policy relates to what amount of profits to be distributed as dividends, and how much is to be retained.

## f. What is Investment decision?

Investment decision is a decision concerned with allocation of funds to get proper yield from project, so that it can recover the cost associated with each source of fund and earn required amount of profit to compensate the risk involved in the business.
g. The investment of the project is Rs.2,00,000/-. Salvage value is $\mathbf{1 5 \%}$ and its additional WC is $20,000 /-$. Calculate average investment.
$\begin{gathered}\text { Average } \\ \text { Investment }=\end{gathered} \frac{\text { Orginal Investment }- \text { Scrap value }}{2}(A W C+S V)=\frac{200000-0.15}{2}(20000+0.15)$
$=1,19,999.775$

## Section - B

Answer any Three questions, each question carries 6 marks: ( $3 \times 6=18$ )
2. What do you mean by bonus share? State the advantage of bonus shares.

Bonus share are the dividend paid to the shareholders in kind. The company follows a practice of transferring a portion of its surplus to the capital accounts. The funds accumulated are capitalized and offered to the existing shareholder in the form of additional shares. The number of shares held by each shareholders increase with the issue of extra shares by the company.

- It makes available capital to carry an a larger and more profitable business
- It is felt that financing helps the company to get rid of market influences
- When a company pays bonus to its shareholders in the value of shares and not in cash, its liquid resources are maintained and the working capital of the company is not affected
- It enables a company to make use of its profits on a permanent basis and increases creditworthiness of the company
- It is the cheapest method of raising additional capital for the expansion of the business
- Abnormally high rate of dividend can be reduced by issuing bonus shares which enables a company to restrict entry of new entrepreneurs into the business and thereby reduces competition
- The balance sheet of the company will reveal a more realistic picture of the capital structure and the capacity of the company


## 3. Briefly explain any six determinants of a capital structure.

The capital structure of a concern depends upon a large number of factors such as leverage or trading on equity, growth of the company, nature and size of business, the idea or retaining control, flexibility of capital structure, requirements of investors, costs of floatation of new securities, timing of issue, corporate tax rate and the legal requirements. The factors determining the capital structure.

- Financial leverage or trading on equity
- Growth and stability of sales
- Cost of capital
- Risk: There are two types of risk that are to be considered while planning the capital structure of a firm, business risk and financial risk.
- Cash flow ability to service debt
- Nature and size of a firm
- Requirements of investors
- Capital market conditions

4. Delta Co. is planning to buying a machine. Two alternatives $P \& Q$, each costing Rs.50,000/-. You are required to call centre profitability index (PI) under $\mathbf{1 0 \%}$. Discount rate the expected cash inflows is given below:

| Year | Cash in flows (Rs) |  |
| :--- | :--- | :--- |
|  | Machine P | Machine Q |
| 1 | 25,000 | 42,000 |
| 2 | 28,000 | 39,000 |
| 3 | 31,000 | 36,000 |

Discount factor @ $10 \%$ is as below:

| Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| :--- | :--- | :--- | :--- |
| Discount factor @ 10\% | 0.909 | 0.826 | 0.751 |

Solution : Statement of the calculation of PI

| Machine P |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Year PV @ 9\% Cash flow PV @ Cash Flow Cash flow <br>  PV @ Cash Flow    <br> 1 0.909 25000 22725 42000 <br> 38178     <br> 2 0.826 28000 23128 39000 | 32214 |  |  |  |  |
| 3 | 0.751 | 31000 | 23281 | 36000 | 27036 |
|  |  |  | $\mathbf{6 9 1 3 4}$ |  | $\mathbf{9 7 4 2 8}$ |

$$
\mathrm{PI}=\frac{\text { Total Present value of cash flow }}{\text { Investment }}
$$

| Machine $P=\frac{69134}{50000}=1.38268$ | Machine $Q=\frac{97428}{50000}=1.94856$ |
| :--- | :---: |
| NPV $=69139-50000=$ Rs. $19,134 /-$ | NPV $=97428-50000=$ Rs. $47,428 /-$ |

5. From the following information calculate operating, financial and combined leverages. Sales Rs. $10,00,000$, Variable cost $30 \%$, Fixed cost $2,00,000,10 \%$ debenture capital is $15,00,000$ and tax rate is $50 \%$.

## Solution: Calculation of Leverages

| Particulars | Amount |  |  |
| :--- | ---: | :---: | :---: |
| Sales | 1000000 |  |  |
| Less: Variable Cost (30\%* 1000000) | 300000 |  |  |
| Contribution |  |  | 700000 |
| Less: Fixed Cost | 200000 |  |  |
|  | EBIT |  |  |
| Less: Interest (1500000*10\%) | 500000 |  |  |
|  | EBT |  |  |
| Less: Tax @ 50\% | 3500000 |  |  |
|  | EAT |  |  |


| Operating <br> Leverage $=$ | Contribution | $=$ | 700000 | $=1.4$ |
| :---: | :---: | :---: | :---: | :---: |
|  | EBIT | 500000 |  |  |


| Financial |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Leverage $=$ | EBIT |  | 500000 | $=1.43$ |
|  | EBT |  | 350000 |  |


| Combined <br> Leverage $=$ | Contribution | $=$ | 700000 | $=2$ |
| :---: | :---: | :---: | :---: | :---: |

6. Evaluate the future value at the end of five years of the following payments at $10 \%$ rate of interest.

At the end of $1^{\text {st }}$ year Rs. 6,000
At the end of $2^{\text {nd }}$ year Rs. 8,000
At the end of $3^{\text {rd }}$ year Rs. 10,000
At the end of $4^{\text {th }}$ year Rs. 12,000
At the end of $5^{\text {th }}$ year Rs. 14,000
Solution: Future value $=P V(1+i)^{n}$

1. for Rs.6,000/- at the end of 1st year

$$
=6000\left[1+\frac{10}{100}\right]^{1}=6000 * 1.1=6,600 /-
$$

2. for Rs.8,000/- at the end of 2 nd year

$$
=8000\left[1+\frac{10}{100}\right]^{2}=8000 * 1.21=9,680 /-
$$

3. for Rs.10,000/- at the end of 3rd year

$$
=10000\left[1+\frac{10}{100}\right]^{3}=10000 * 1.331=13,310 /-
$$

4. for Rs.12,000/- at the end of 4 th year

$$
=12000\left[1+\frac{10}{100}\right]^{4}=12000 * 1.4641=17,569 /-
$$

5. for Rs. 14,000/- at the end of 5 th year

$$
=14000\left[1+\frac{10}{100}\right]^{5}=14000 * 1.6=22,540 /-
$$

## Section - C

## Answer any Three questions. Each answer carries 14 marks: (3 X 14=42)

7. Explain in detail Goals of Financial management

Financial Management is concerned with the managerial decisions that result in the acquisition and financing of short term and long term credits for the firm.
$\left.\begin{array}{|l|l|l|l|}\hline \text { GOAL } & \text { OBJECTIVES } & \text { ADVANTAGES } & \text { DISADVANTAGES } \\ \hline \begin{array}{l}\text { Profit } \\ \text { maximization }\end{array} & \begin{array}{l}\text { Large amount } \\ \text { of profits }\end{array} & \begin{array}{l}\text { 1. Easy to calculate } \\ \text { profits } \\ \text { 2. Easy to determine } \\ \text { the link between } \\ \text { financial decisions } \\ \text { and profits }\end{array} & \begin{array}{l}\text { 1.Emphasizes the short term } \\ \text { gains }\end{array} \\ \begin{array}{ll}\text { 2.Ignores risk or } \\ \text { 3.Ignores the timing of returns } \\ \text { 4.Requires immediate } \\ \text { resources }\end{array} \\ \hline \begin{array}{l}\text { Shareholders } \\ \text { Wealth } \\ \text { Maximization }\end{array} & \begin{array}{l}\text { Highest market } \\ \text { value of shares }\end{array} & \begin{array}{l}\text { 1. Emphasizes the } \\ \text { long term gains } \\ \text { 2. Recognises risk or } \\ \text { uncertainty }\end{array} & \begin{array}{l}\text { 1.Offers no clear relationship } \\ \text { between financial decisions } \\ \text { and share price }\end{array} \\ \text { 2. Can lead to management } \\ \text { anxiety and frustration }\end{array}\right\}$

## General objectives

a. Balanced asset structure: A proper balance between the fixed and current assets is an important factor for efficient management of an organization maximizes the present value not only for shareholders but for all including employee, customers, suppliers at large and for efficient of funds. This is one of the objectives of financial management that the size of current asset must permit the company to exploit the investment on fixed asset.
b. Liquidity: Liquidity refers to available cash it is an indication of positive growth of a company. It is an important factor for meeting the short and long term obligation of a firm
c. Proper Planning of funds: Proper planning of funds include acquisition and allocation of funds in the best possible manner i.e., minimum cost of acquisition of funds but maximum decision
d. Efficiency: Efficiency and effectiveness are very much necessary in controlling the flow of funds. The efficiency level should continuously increase for betterment of the organization.
8. What do you mean by working capital? Explain the determinants of working capital.
Working capital management or current assets management is one of the vital parts of financial management. Working capital is concerned with short term finance or finance required for routine activities or operations. Effective and efficient management of working capital ensures the success of a business. The inefficiency of management may lead to loss, which in turn leads to shut down of business operations.

## FACTORS DETERMINING WORKING CAPITAL REQUIREMENT

1. Nature or character of business
2. Size of business/scale of operations
3. Production policy
4. Manufacturing process/Length of production cycle
5. Seasonal variation
6. Working capital cycle
7. Rate of stock turnover
8. Credit policy
9. Business cycles
10. Rate of growth of business
11. Earning capacity and dividend policy
12. Price level changes
13. Other factors
14. The information given below is related to "E" Company Ltd.

Initial Investment is Rs. $\mathbf{2 , 0 0 , 0 0 0}$-, Salvage value is $\mathbf{1 0 \%}$, Economic life of project 5 years
The expected profit before depreciation and Tax is given below (PBDT)

| Year | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PBDT | 38,000 | 48,000 | 58,000 | 68,000 | 78,000 |

PV Factor: @ $10 \%$ Discount rate is

| Year | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PV Factor | 0.909 | 0.826 | 0.751 | 0.683 | 0.621 |

You are required to Calculate ARR and NPV

## Solution: Calculation of Average Annual Income

| Particulars | Amount |
| :--- | ---: |
| Average Earnings before Depr \& Tax | 58,000 |
| Less: Depreciation | 36000 |
| Average earnings before tax | 22,000 |
| Less: Tax @ 50\% | 11000 |
| Average Earnings after tax | 11,000 |

## Working Notes:

1. Calculation of average earnings before Depre \& Tax

$$
\begin{aligned}
& =\frac{\text { Total Income }}{\text { No. of Years }} \\
X & =\frac{38000+48000+58000+68000+78000}{5}=\frac{290000}{5}=58000
\end{aligned}
$$

2. Calculation of Depreciation

$$
\begin{aligned}
& =\frac{\text { Orginal Investment }- \text { Scrap Value }}{\text { Life of the asset }} \\
& =\frac{200000-20000}{5}=36000
\end{aligned}
$$

3. Calculation of Average Investment

Average Invest $=\quad($ Original Investment - Scrap $) / 2+\mathrm{WC}+$ Scrap
$=(200000-20000) / 2+0+20000=110000 /-$

Calculation of ARR

$$
\mathrm{ARR}=\frac{\text { Average Annual income after tax }}{\text { Average Investment }}=11000 / 110000=10 \%
$$

10. The Ranga Co.Ltd. Operates its business with a equity capital of Rs.50,00,000/of Rs. 100 per share. Co. wants to raise further Rs.30,00,000/- for major expansion programme with following 4 alternative plans:
a. All equity shares
b. All debentures at $10 \%$ interest rate
c. Rs.10,00,000/- from equity and Rs.20,00,000/- from $10 \%$ Debentures
d. Rs. $15,00,000 /$ - from equity and Rs. $15,00,000 /$ - from $10 \%$ Pre.Shares

The Co. Tax rate is $50 \%$. Calculate EPS of each plan of EBIT is Rs.8,00,000/-

## Solution: Analysis Table

| Particulars | I | II | III | IV |
| :--- | :--- | :--- | :--- | :--- |
| Equity share capital | $50,00,000$ | $50,00,000$ | $50,00,000$ | $50,00,000$ |
| Additional Equity share capital | 3000000 |  | 1000000 | 1500000 |
| Debenture (interest) |  | 300000 | 200000 |  |
| Preference shares |  |  |  | 150000 |
| Total Equity share capital | $80,00,000$ | $50,00,000$ | $60,00,000$ | $65,00,000$ |
| Face Value | 100 | 100 | 100 | 100 |
| No of Equity shares | 80000 | 50000 | 60000 | 65000 |

Calculation of EPS

| Particulars | I | II | III | IV |
| :--- | ---: | ---: | ---: | ---: |
| EBIT | 800000 | 800000 | 800000 | 800000 |
| Less: Interest (3000000*10\%) | 0 | 300000 |  | 0 |
| Less: Interest (2000000*10\%) |  |  | 200000 |  |
| Earning after interest before Tax | 800000 | 500000 | 600000 | 800000 |
| Less: Tax @ 50\% | 400000 | 250000 | 300000 | 400000 |
|  | EBT | 400000 | 250000 | 300000 |
| Less: Preference shares (15lac*10\%) | 0 | 0 | 0 | 150000 |
| Earning available for Eqt shareholders | 400000 | 250000 | 300000 | 250000 |


| EPS = Earnings available for Eqt <br> shareholders | 400000 | 250000 | 300000 | 250000 |
| :---: | ---: | ---: | ---: | ---: |
| No of Equity shares | 80000 | 50000 | 60000 | 65000 |
|  | 5.00 | 5.00 | 5.00 | 3.85 |

11. From the following information calculate pay-back period of both the machines Raja and Roja

| Particulars | Machine Raja | Machine Roja |
| :--- | :--- | :--- |
| Cost of each machine | $5,00,000$ | $6,00,000$ |
| Life | 5 years | 6 years |
| Co. Tax rate | $50 \%$ | $50 \%$ |
| PBDT (Profit before Dep. \& Tax) |  |  |
| 1 year | $1,10,000$ | $1,80,000$ |
| 2 year | $1,40,000$ | $2,10,000$ |
| 3 year | $1,70,000$ | $2,40,000$ |
| 4 year | $1,60,000$ | $1,90,000$ |
| 5 year | $1,30,000$ | $2,00,000$ |

Solution:
Calculation of Payback Period

| Year | Machine <br> Raja <br> (A) | Depr <br> (B) | EBT <br> (A-B) = <br> C | Tax 50\% <br> (C* 50\%) = <br> D | EAT <br> C-D | Dep | Cash flow <br> (EBIT + <br> Dep) | Cash <br> flow |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | :--- |
| 1 | 110000 | 100000 | 10,000 | 5000 | 5,000 | 100000 | $1,05,000$ | $1,05,000$ |
| 2 | 140000 | 100000 | 40,000 | 20000 | 20,000 | 100000 | $1,20,000$ | $2,25,000$ |
| 3 | 170000 | 100000 | 70,000 | 35000 | 35,000 | 100000 | $1,35,000$ | $3,60,000$ |
| 4 | 160000 | 100000 | 60,000 | 30000 | 30,000 | 100000 | $1,30,000$ | $4,90,000$ |
| 5 | 130000 | 100000 | 30,000 | 15000 | 15,000 | 100000 | $1,15,000$ | $6,05,000$ |

Pay Back Period $=4$ years $+10000 / 115000=4+0.086$
$=4.086$ years

| Year | Machine <br> Raja <br> (A) | Depr <br> (B) | EBT <br> $(\mathbf{A - B})=$ <br> C | Tax 50\% <br> (C* 50\%) = <br> D | EAT <br> C-D | Dep | Cash flow <br> (EBIT + <br> Dep) | Cash <br> flow |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 180000 | 100000 | 80,000 | 40000 | 40,000 | 100000 | $1,40,000$ | $1,40,000$ |
| 2 | 210000 | 100000 | $1,10,000$ | 55000 | 55,000 | 100000 | $1,55,000$ | $2,95,000$ |
| 3 | 240000 | 100000 | $1,40,000$ | 70000 | 70,000 | 100000 | $1,70,000$ | $4,65,000$ |
| 4 | 190000 | 100000 | 90,000 | 45000 | 45,000 | 100000 | $1,45,000$ | $6,10,000$ |
| 5 | 200000 | 100000 | $1,00,000$ | 50000 | 50,000 | 100000 | $1,50,000$ | $7,60,000$ |

Pay Back Period $=3$ years $+35000 / 145000=3+0.93$
$=3.93$ years

