LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Com. DEGREE EXAMINATION – **HONOURS**

FOURTH SEMESTER – **APRIL 2022**

UBH 4502 – FINANCIAL MANAGEMENT

Date: 20-06-2022 Dept. No. Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART-A

Answer all the questions **15*2=30**

1. Which of the following is not a consequence or symptom of the agency problem?
   A Managers diverting funds into their own pet projects
   B Managers selecting quick payback projects
   C Managers engaging in empire building
   D Managers increasing financial gearing for tax shield purpose
2. The following financial information relates to an investment project:

	$000
Present value of sales revenue	50,025
Present value of variable costs	25,475
Present value of contribution	24,550
Present value of fixed costs	18,250
Present value of operating income	6,300
Initial investment	5,000

   What is the sensitivity of the net present value of the investment project to a change in fixed costs?
   A 7·1% B 5·3% C 5·1% D 2·6%
3. Which of the following statements is true if the net present value of a project is negative $4,000 and the required rate of return is 5%?
   A The project's IRR is less than 5%
   B The required rate of return is lower than the IRR
   C The NPV assumes cash flows are reinvested at the IRR
   D The NPV would be positive if the IRR was equal to 5%
4. Under M&M no tax which of the following statements are true?
   statement (1) It does not matter how a business raises finance.
   statement (2) Shareholders, given the M&M assumptions, will recognise the level of risk inherent in any extra debt and compensate themselves by a commensurate increase in required return to leave the company WACC unaltered and without any inherent gain.
   A Both statements are true
   B Both statements are false
   C Only statement (1) is true
   D Only statement (2) is true
5. Company A is an unquoted, property development company with a portfolio of over two hundred houses at various stages of renovation. It has been loss making for the last two years due to the economic downturn. Davina believes that new government legislation will bring a welcome boost to the housing market. Which of the following valuation methods is most suitable for valuing Company A?
   A P/E ratio × earnings
   B Dividend valuation model (DVM)
   C Net realisable value of assets
   D Market capitalization
6. The principal objectives of macroeconomic policy include which of the following? 1 Full employment of resources 2 Price stability 3 Economic growth 4 Balancing the government budget
   A 1 and 2 only B 1 and 3 only C 1, 2 and 3 only D 1, 2, 3 and 4

7. Which of the following is NOT typically a principal objective of macroeconomic policy?
A To achieve full employment of resources
B To achieve economic growth
C To achieve a balance of payments deficit
D To achieve an appropriate distribution of income and wealth
8. Thrifty plc's cash budget highlights a short-term surplus in the near future. Which of the following actions would be appropriate to make use of the surplus?
A Pay suppliers earlier to take advantage of any prompt payment discounts
B Buy back the company's shares
C Increase payables by delaying payment to suppliers
D Invest in a long term deposit bank account
9. A company has annual credit sales of $27 million and related cost of sales of $15 million. The company has the following targets for the next year: Trade receivables days 50 days Inventory days 60 days Trade payables 45 days Assume there are 360 days in the year. What is the net investment in working capital required for the next year?
A $8,125,000 B $4,375,000 C $2,875,000 D $6,375,000
10. Which of the following is a key feature of debt as a source of finance?
A Interest must be paid irrespective of the level of profits generated by the company
B Debt holders are repaid last in the case of a winding up of the company
C Debt holders hold full voting rights
D Debt holders suffer relatively high levels of risk, compared to providers of other sources of finance, and therefore debt attracts the highest return
11. What is the main advantage of using simulations to assist in investment appraisal?
A A clear decision rule
B More than one variable can change at a time
C Statistically more accurate than other methods
D Being diagrammatic it is easier to understand
12. Which TWO of the following are true of the internal rate of return (IRR) and the net present value (NPV) methods of appraisal?
1 IRR ignores the relative sizes of investments
2 IRR requires a reinvestment assumption which cannot be proven
3 NPV is widely used in practice
4 IRR is technically superior to NPV
A 1 and 2 B 1 and 3 C 2 and 4 D 3 and 4

13. Which of the following statements, concerning receivables management, is incorrect?
A Credit limits should be reviewed periodically
B Credit analysis depends on the provision of relevant information, for example trade references
C Delaying payment of invoices is likely to make receivables management more effective
D Longer-term credit may increase revenue but also increases the risk of bad debts
14. The main aspects of debt factoring include
(1) Administration of the client's invoicing, sales accounting and debt collection service
(2) Making payments to the client in advance of collecting the debts
(3) Credit protection when the service is non-recourse
A (1) only B (1) and (2) only C (2) and (3) only D All of the above
15. Which of the following will shorten the cash operating cycle?
A An increase in the raw materials inventory holding period
B An increase in the trade payables days
C An increase in the trade receivables days
D An increase in the production period

PART-B

Answer all the questions 3*10=30

16. The following information relates to an investment project, which is being evaluated by the directors of Fence Co, a listed company. The initial investment, payable at the start of the first year of operation, is $3.9 million.

Year	1	2	3	4
Net operating cash flow ($000)	1,200	1,500	1,600	1,580
Scrap value ($000)				100

The directors believe that this investment project will increase shareholder wealth if it achieves a return on capital employed greater than 15%. As a matter of policy, the directors require all investment projects to be evaluated using both the payback and return on capital employed methods. Shareholders have recently criticised the directors for using these investment appraisal methods, claiming that Fence Co ought to be using the academically-preferred net present value method.

The directors have a remuneration package which includes a financial reward for achieving an annual return on capital employed greater than 15%. The remuneration package does not include a share option scheme.

(a) What is the payback period of the investment project, in years to 2 decimal places? years

(b) Based on the average investment method, what is the percentage return on capital employed of the investment project, to one decimal place? %

(c) Which TWO of the following statements about investment appraisal methods are correct?

A The return on capital employed method considers the time value of money

B Return on capital employed must be greater than the cost of equity if a project is to be accepted

C Riskier projects should be evaluated with shorter payback periods

D Payback period ignores the timing of cash flows within the payback period

(d) Which of the following statements about Fence Co is/are correct?

1 Managerial reward schemes of listed companies should encourage the achievement of stakeholder objectives.

2 Requiring investment projects to be evaluated with return on capital employed is an example of dysfunctional behaviour encouraged by performance-related pay.

3 Fence Co has an agency problem as the directors are not acting to maximise the wealth of shareholders.

A 1 and 2 only B 1 only C 2 and 3 only D 1, 2 and 3

(e) Which of the following statements about Fence Co directors' remuneration package is/are correct?

1 Directors' remuneration should be determined by senior executive directors.

2 Introducing a share option scheme would help bring directors' objectives in line with shareholders' objectives.

3 Linking financial rewards to a target return on capital employed will encourage short-term profitability and discourage capital investment.

A 2 only B 1 and 3 only C 2 and 3 only D 1, 2 and 3

17. Care Co needs to replace a major piece of office equipment that is in constant use and for which here is expected to continue to be use for the foreseeable future. Two types of machine are available with different capital costs, useful lives, scrap values and annual running costs.

Machine 1 will initially cost $480,000, have a life of four years, scrap value of $60,000 and annual running costs of $72,000.

Machine 2 will initially cost $540,000, have a life of three years, scrap value of $120,000 and annual running costs of $47,000.

Care Co's cost of capital is 10%. Assume all cash flows, except the initial capital cost, occur at the end of the relevant year and assume that taxation and inflation can be ignored.

(a) What is the equivalent annual cost of machine 2 (to the nearest $000)?

(b) Which of the following statements are true or false

Statement: (1) The equivalent annual cost calculation assumes the same type of machine is going to be used into the foreseeable future.

Statement: (2) The equivalent annual cost calculation assumes the capabilities of Machine 1 and Machine 2 are identical.

A Statement: (1) is true and Statement: (2) is false

B Statement: (1) is false and Statement: (2) is true

C Both statements are true

D Both statements are false

(c) It is now felt that the final scrap value of the machines depends on two factors: whether or not a new supplier enters the market (which would reduce the likely scrap value) and the strength of the dollar against other currencies (since sales of used machines will be made abroad and invoiced in the foreign currency). Adverse effects will each reduce the scrap value by 10% of the figure used in the investment appraisal. The relevant probabilities are as follows.

New supplier	Probability	Strong	Probability
Yes	0.4	Yes	0.3
No	0.6	No	0.7

What is now the expected value of the scrap proceeds from machine 2?

A $106,800 B $109,000 C $111,600 D $113,000

(d) To overcome the difficulties of incorporating probabilities into the investment appraisal calculations, Care Co could perform a simulation exercise to help reach a decision.

Which of the following statements are true or false

Statement: (1) It eliminates the effects of risk associated with various estimates.

Statement: (2) It requires probabilities of estimates subject to risk to be known.

A Statement: (1) is true and Statement: (2) is false

B Statement: (1) is false and Statement: (2) is true

C Both statements are true

D Both statements are false

(e) Which of the following statements about Care Co's replacement decision are true?

1 The decision between machine 1 and machine 2 could be found by calculating total NPV of each machine over a 12 year period.

2 The replacement analysis model assumes that Care Co replaces like with like each time it needs to replace an existing asset.

A 1 only B Both 1 and 2 C 2 only D Neither 1 nor 2

18. Dominance Co is considering raising some new finance but there is disagreement at board level how best to proceed.

The managing director thinks that the company should retain control in the hands of the existing and loyal shareholders. The finance director feels that the gearing level should be allowed to increase to benefit from the tax relief allowed on interest.

The existing equity is quoted at $4.20 cum div with an imminent dividend of 16c due any day. The company earnings have grown at a fairly steady rate of 8% over recent years, but expectations are for growth to be 2% points better in the future.

The company's debt is 4% irredeemable bonds, which were issued at a 5% discount of $95. They have a nominal value of $100 but are currently quoted at $80 with the interest having just been paid. The corporation tax rate is 25%.

(a) Assuming the business wants to retain control in the hands of the existing shareholders, how should it seek to raise the new finance?

A A placing of new shares via a loyal broker

B A further public offering of shares

C A rights issue where it is expected that 95% of the existing shareholders will accept the offer

D Issue new debt

(b) Assuming the business wants to maximise the tax shield on the new finance, how should it raise the money?

A A placing of new shares and $10,000,000 of preference shares

B Accepting a VC offer which includes $5,000,000 of 4% redeemable bonds and some shares

C Sell redeemable debt with a market value $12,700,000 (nominal value $12,000,000) with interest at 5%. The redemption value will make up 25% of the market value

D Sell 120,000 irredeemable loan notes at nominal value with interest at 5.25%

(c) What is the percentage cost of equity to one decimal place? %

(d) What is the after tax cost of debt, as a percentage to two decimal places? %

(e) The cost of equity for Dominance Co is significantly greater than the cost of debt. The main reason for this is:

A The total risk level in the business

B The specific risk in the business

C The tax shield

D The level of systematic risk in the business

PART- C

Answer all the questions 2x20=40

19. Charm Co, a software company, has developed a new game, "Fingo", which it plans to launch in the near future. Sales of the new game are expected to be very strong, following a favourable review by a popular PC magazine. Charm has been informed that the review will give the game a "Best Buy" recommendation. Sales volumes, production volumes and selling prices for "Fingo" over its four-year life are expected to be as follows:

Year	1	2	3	4
Sales and production (units)	150,000	70,000	60,000	60,000
Selling price	\$25	\$24	\$23	\$22

Financial information on "Fingo" for the first year of production is as follows:

Direct material cost \$5·40 per game

Other variable production cost \$6·00 per game

Fixed costs \$600,000 per year

Advertising costs to stimulate demand are expected to be \$650,000 in the first year of production and \$100,000 in the second year of production. No advertising costs are expected in the third and fourth years of production. Fixed costs represent incremental cash fixed production overheads. "Fingo" will be produced on a new production machine costing \$800,000. Tax-allowable depreciation will be claimed on a straight-line basis over four years.

Charm pays tax on profit at a rate of 30% per year and tax liabilities are settled in the year in which they arise. Charm uses an after-tax discount rate of 10% when appraising new capital investments.

Required:

(a) Calculate and comment upon the net present value of the investment and comment on your findings. (15 marks)

(b) Describe any 5 ways of incorporating risk analysis into the NPV Investment appraisal **(5 marks)**

20. FLG Co has annual credit sales of \$4.2 million and cost of sales of \$1.89 million. Current assets consist of inventory and accounts receivable. Current liabilities consist of accounts payable and an overdraft with an average interest rate of 7% per year. The company gives two months' credit to its customers and is allowed, on average, one month's credit by trade suppliers. It has an operating cycle of three months. Other relevant information:

Current ratio of FLG Co 1.4

Cost of long-term finance of FLG Co 11%

Required:

(a) Discuss the key factors which determine the level of investment in current assets. **(4 marks)**

(b) Briefly discuss the ways in which factoring can assist in the management of accounts receivable. (3 marks):

(c) Calculate the size of the overdraft of FLG Co, the net working capital of the company and the total cost of financing its current assets. **(6 marks)**

(d) FLG Co wishes to minimize its inventory costs. Annual demand for a raw material costing \$12 per unit is 60,000 units per year. Inventory management costs for this raw material are as follows:

Ordering cost: \$6 per order

Holding cost: \$0.5 per unit per year

The supplier of this raw material has offered a bulk purchase discount of 1% for orders of 10,000 units or more. If bulk purchase orders are made regularly, it is expected that annual holding cost for this raw material will increase to \$2 per unit per year.

Required: (i) Calculate the total cost of inventory for the raw material when using economic order quantity. **(4 marks)**

(ii) Determine whether accepting the discount offered by the supplier will minimize the total cost of inventory for the raw material. **(3 marks)**

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