# MGT 250: Entrepreneurship \& Small Business Management BBS $4^{\text {th }}$ Year <br> Model Question 

Full Marks: 100 Pass Marks: 35
Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

## Group 'A'

## Attempt All Questions

Brief Questions Answer
$[10 \times 2=20]$

1. Who is an entrepreneur?
2. What is small business?
3. Mention any four sources of idea generation in small business.
4. What is organizational feasibility analysis?
5. Mention major two quantitative tools to aid decision making.
6. Define venture capital.
7. Mention any two sources of debt financing.
8. What is motivation research?
9. What is capital budgeting?
10. Mention any two sources of long- term funds.

## Group 'B'

Descriptive Answer Questions (attempt any five)
[ $5 \times 10=50$ ]
11. State and explain the characteristics of successful entrepreneurs.
12. Explain the importance of small business in Nepalese economy.
13. What is franchising? Explain the advantages of franchising.
14. Define feasibility analysis. Explain the factors affecting location sustainability
15. What is new venture? Explain the 4 ps of marketing for new ventures.
16. What are the problems in the operations of small stores in Nepal?

## Group 'C'

## Analytical Answer Questions (attempt any two)

[ $2 \times 15=30$ ]
17. Define entrepreneurship. Explain the positive and negative aspects of entrepreneurship.
18. What is small business promotion centre? Discuss the role of ministry of commerce \& industry in promoting and strengthing small business in Nepal.
19. What are factors for pricing decision? Explain the marketing research techniques \& activities used in small business.

## Fundamentals of Corporate Finance

## Model Questions - 2072

Program: BBS
Part: IV
Code: FIN 250

Time: 3 Hours
F.M.: 100
P.M.: 35

Candidates are required to give the answers in their own words as far as practicable. Figures in the margin indicate the full marks.

## Group A

Brief Answer Questions
Attempt All questions from Group A $(10 \times 2=20)$

1. Define corporate social responsibility with example.
2. What do you mean by agency problem? List out the parties involved in agency problem.
3. What are three different ways capital is transferred between savers and borrowers?
4. What is a yield curve?
5. Differentiate between primary and secondary markets.
6. Why does a firm include call provision in bond issue?
7. Why is preferred stock called hybrid security?
8. A call option on Birat company's stock has a market price of Rs 7. The stock sells for Rs 30 a share, and the option has an exercise price of Rs 25 a share. What is the exercise value of the call option?
9. What will be annual installment for the loan for Rs 500,000 if interest rate is $10 \%$ and that the loan period is 3 years?
10. The Shikhar Company needs to raise Rs 20 million to finance its expansion into new markets. The company will sell new shares of equity via a general cash offering to raise the needed funds. The offer price is Rs 90 per share and the company's underwriters charge an 5 percent spread. How many shares need to be sold?

## Group B <br> Descriptive Answer Questions

Attempt any Five questions from Group B $(5 \times 10=50)$
11. What do you mean by Multinational Corporation? Describe the reasons for corporation going global?
12. Is synergy a valid rationale for mergers? Describe several situations that might produce synergistic gains.
13. Assume that the real risk-free rate is 3.5 percent and default risk premium is zero. The nominal rate of interest on 1 -year bond is 5 percent and that on comparable risk 2 -year bond is 6 percent and a 3 -year bond is 9 percent, which includes the maturity risk premium of 1.5 percent.
a. Using the expectation theory, forecast the interest rate on a 1 -year bond during the third year.
b. What is the expected inflation rate in year 1,2 , and 3 ?
c. Comment on the causes why average interest rate is different from interest rate in year 2 and 3.
$[4+4+2]$
14. Firms HL and LL are identical except for their leverage ratios and the interest rates they pay on debt. Each has Rs 20 million in assets, has Rs 4 million of EBIT, and is in the $40 \%$ tax bracket. Firm HL, however, has a debt ratio of $50 \%$ and pays $12 \%$ interest on its debt, whereas LL has a $30 \%$ debt ratio and pays only $10 \%$ interest on its debt.
a. Calculate the rate of return on equity (ROE) for each firm.
b. Observing that HL has a higher ROE, LL's treasurer is thinking of raising the debt ratio from $30 \%$ to $60 \%$ even though that would increase LL's interest rate on all debt to $15 \%$. Calculate the new ROE for LL.
[6+4]
15. Himalaya Herbal Company's 2012 financial statement s are shown below:

Balance Sheet as of December 31, 2012 (Thousands of Rupees)

| Cash | Rs 1,800 | Accounts payable |
| :--- | ---: | ---: |
| Receivables | 10,800 | Notes payable |
| Inventory | 12,600 | Accruals |
| Total current assets | 21,200 | Total current liabilities |
| Net fixed assets | Rs | 3,200 |
|  |  | Mortgage bonds |
|  | Common stock | Rs 13,520 |
| Total assets | Retained earnings | 5,000 |

Income Statement for year ended December 31, 2012 (Thousands of Rupees)

| Sales | Rs 36,000 |
| :--- | :--- |
| Operating costs | 30,783 |
| Earnings before interest and | Rs 5,217 |
| taxes Interest | 1,017 |
| Earnings before taxes | Rs 4,200 |
| Taxes (40\%) | 1,680 |
| Net income | Rs 2,520 |
| Dividends (60\%) | Rs 1,512 |
| Addition to retained earnings | Rs 1,008 |

a. Assume that the company was operating at full capacity in 2012 with regard to all items except fixed assets; fixed assets in 2012 were being utilized to only 75 percent of capacity. By what percentage could 2013 sales increase over 2012 sales without the need for an increase in fixed assets?
b. Now suppose 2013 sales increase by 25 percent over 2012 sales. How much additional external capital will be required? Assume that the company cannot sell any fixed assets and any required financing is borrowed as notes payable.
16. Suppose, a vacationing American tourist, Mr Ralph flies from New York to London, then to Paris, then on to Munich, and finally back to New York. When he arrives at London he knew U.S. dollar is \$ 1.5944 per pound from the foreign exchange listing. He exchanges $\$ 20,000$ for pound and spends 754.339 British pounds while there in London. Then he went to France and exchanged his remaining British pound for French francs. He observed indirect quotation between francs and dollars in FF 4.9675.
a. What is the cross rate between pounds and francs? How much he would receive in francs for \$500?
b. After completing his visit in France and he arrives in Germany, and need German marks. The dollar basis quotes are FF 4.9675 per dollar and DM 1.4033 per dollar. What is the cross rate between marks and francs? If he had FF 2,000 remaining, how much marks he would receive?
c. Finally he returns to New York after vacation ends. If he holds 50 marks and need dollar, what is the indirect quote rate of dollar per mark? What amount of dollar he would receive? $[4+3+3]$

## Group C Analytical Answer Questions

## Attempt any Two questions from Group C

( $2 \times 15=30$ )
17. What are the reasons companies might use risk management techniques? How should derivatives be used in risk management? Explain.
[6+9]
18. Sunlight Sailboats estimates that due to the seasonal nature of its business, it will require an additional Rs $2,000,000$ of cash for the month of July. Sunlight has three options available to provide the needed funds. It can

1. Establish a one-year line of credit for Rs $2,000,000$ with a commercial bank. The commitment fee will be 0.5 percent, and the interest charge on the used funds will be 15 percent per annum. The minimum time the funds can be used is 30 days.
2. Forego the July trade discount of $2 / 10$, net 40 on Rs $2,000,000$ of accounts payable.
3. Issue Rs $2,000,000$ of 60 -day commercial paper at a 14 percent per annum interest rate. Since the funds are required for only 30 days, the excess funds (Rs $2,000,000$ ) can be invested in 12 percent per annum marketable securities for the month of August. The total transaction fee on purchasing and selling the marketable securities is 0.5 percent of the fair value.
a. Which financial arrangement results in the lowest rupees costs?
b. Is the source with the lowest expected cost necessarily the source to select? Why or why not?
$[4 * 3+3]$
4. The stock of the National Corporation is selling for Rs 50 per share. The company then issues rights to subscribe to one new share at Rs 40 for each five rights held.
a. What is the theoretical value of a right when the stock is selling rights-on?
b. What is the theoretical value of one share of stock when it goes ex-rights?
c. What is the theoretical value of a right when the stock sells ex-rights at Rs 50 ?
d. Shiva Khanal has Rs 1,000 at the time National stock goes ex-rights at Rs 50 per share. He feels that the price of the stock will rise to Rs 60 by the time the rights expire. Compute his rate of return on his Rs 1,000 if he (1) buys National stock at Rs 50 , or (2) buys the rights at the price computed in part c , assuming his price expectations are valid.
e. Do you think investment in rights is riskier than the investment in stock of the same company? Justify.

# Foundation of Financial Markets and Institutions <br> Model Questions - 2072 

Program: BBS
Part: IV
Code: FIN 252

Time: 3 Hours
F.M.: 100
P.M.: 35

Candidates are required to give the answers in their own words as far as practicable. Figures in the margin indicate the full marks.

## Group A

## Brief Answer Questions

Attempt All questions from Group A
$(10 \times 2=20)$

1. Define financial assets and tangible assets, and give examples.
2. Name three widely accepted goals of monetary policy. Explain one in brief.
3. How do you differentiate the participating policies from nonparticipating policies?
4. What do you mean by load? Explain with example.
5. Interpret Fisher's equation.
6. Describe briefly the features of municipal bond.
7. What is efficient capital? Explain operationally efficient market briefly.
8. What is Eurobond?
9. When do investors engage in short selling?
10. If the value of equity is Rs 10 million, value of assets is Rs 100 million, what is the value of the liabilities?

## Group B <br> Descriptive Answer Questions

Attempt any Five questions from Group B

$$
(5 \times 10=50)
$$

11. What are the roles of financial intermediaries? Explain.
12. Suppose Nepal Rastra Bank were to inject Rs 100 million of reserves into the banking system by an open market purchase of Treasury bills. If the required reserve ratio were $10 \%$, what is the maximum increase in M1 that the new reserves would generate? Assume that banks make all the loans their reserves allow, that firms and individuals keep all their liquid assets in depository accounts, and no money is in the form of currency.
13. Define the pension funds and explain the different types of pension funds. $(2+8)$
14. The market price of the stock of Annapurna Company is Rs 50 per share and there are one million shares outstnading. Suppose that the management of this company is considereing a rights offering in connection with the issuance of 500,000 new shares. Each current shaereholder would receive one right for every two shares owed. The terms
of the rights offering are as follows: For two rights and Rs 30 (the subcription price), a new share can be acquired.
a) What would be the share price be after the rights offering?
b) What is the value of one right?
(5+5)
15. Suppose that the price of a Treasury bill with 90 days to maturity and a Rs 1 million face value is Rs 980,000 .
a) What is the bank discount?
b) What is the yield on a bank discount basis?
(5+5)
16. Calculate the risk-weighted assets from the information given bellow:

| Assets | Book Value in Million | Risk Weight (in \%) |
| :--- | :--- | :--- |
| Treasury securities | 150.00 | 0 |
| Local government bonds | 100.00 | 20 |
| Mortgage | 250.00 | 50 |
| Commercial loan | 500.00 | 100 |
| Total | 1000.00 |  |

## Group C <br> Analytical Answer Questions

Attempt any Two questions from Group C
$(2 \times 15=30)$
17. What is insurance? Explain the nature of business of different types of insurance.
(3+12)
18. (a) An investment company has Rs 1.05 million of assets and Rs 50,000 of liabilities, and 10,000 shares of outstanding.
i) What is its net asset value (NAV)?
ii) Suppose the fund pays off its liabilities while at the same time the value of its assets double. How many shares will a deposit of Rs 5,000 receive?
iii) Differentiate closed-end funds from open-end funds?
(3+3+4)
(b) Suppose you own a bond that pays Rs 75 yearly in coupon interest and that is likely to be called in two years (because the firm has already announced that it will redeem the issue early). The call price will be Rs 2,050 . What is the price of your bond now in the market if the appropriate discount rate for this asset is $9 \%$ ?
19. Consider the following fixed-rate, level payment
mortgage: Maturity: 360 months
Amount borrowed: Rs 100,000
Annual mortgage rate: $10 \%$
a) Construct an amortization schedule for the first 10 months.
b) What will the mortgage balance be at the end of $360^{\text {th }}$ month, assuming no prepayments?
c) Without constructing an amortization schedule, what is the mortgage balance at the end of month 270 , assuming no prepayments?
d) Without constructing an amortization schedule, what is the scheduled principal payment at the end of month 270 , assuming no prepayments?

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(6+3 \times 3)
$$

# Commercial Bank Management <br> Model Questions - 2072 

## Program: BBS

Time: 3 Hours
Part: IV
F.M.: 100

Code: FIN 251
P.M.: 35

Candidates are required to give the answers in their own words as far as practicable. Figures in the margin indicate the full marks.

## Group A <br> Brief Answer Questions

Attempt All questions from Group A
( $10 \times 2=20$ )

1. What are the aspects of internal performance of a commercial bank? Explain any one.
2. Define the dollar gap and illustrate it with an example.
3. What is aggressive investment strategy?
4. Why do we use credit scoring models?
5. Nabil Bank Ltd. committed Rs 5 million loans and it charges .05 percent commitment charge. What is the commitment charge?
6. What is balloon loan?
7. List common ratios that are used to measure the bank liquidity position. Illustrate any one of them with suitable example.
8. Differentiate currency swap from interest swap.
9. List out the principal retail electronic banking products.
10. What is meant by securitization?

## Group B

## Descriptive Answer Questions

Attempt any Five questions from Group B
11. What are the principal goals of a commercial bank? How does profitability of a bank affect this goal? (6+4)
12. ABC Bank Ltd reports total interest revenue of Rs 86.42 million, total interest expenses of Rs 58.62 million, provision for loan losses of Rs 3.6 million, total noninterest revenue of Rs 15.61 million, total noninterest expenses of Rs 28.60 million, and an income tax rate of 30 percent. Total assets are Rs 842.16 million.
a) What is ABC Ltd's net interest income?
b) What is its net interest margin?
c) What is its Return on assets?
d) What is its asset utilization ratio?
e) What is its profit margin ratio?
13. A municipal bonds selling at par has a yield-to-maturity equal to 10 percent. A bank investment manager wishes to calculate its tax equivalent yield. Assume that it is a qualified bonds, the bank's tax rate is 34 percent, and the average cost of funds for the bank is 8 percent. If the bond was not qualified, what would be the answer?
14. Suppose you are evaluating the loan applicants for short term loans. What are the relevant ratios used to evaluate the applicant's financial position?
15. A Rs 500,000 loan is made for 90 dyas at 8 percent per annum. Compute the effective yield using (a) 360 day year and (b) 365 day year. (5+5)
16. Given the following information:

| Assets |  |  | Liabilities and Equity |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| Rate-sensitive | Rs 200 | $(12 \%)$ | Rate-sensitive | Rs 300 | $(6 \%)$ |  |
| Non-rate sensitive | 400 | $(11 \%)$ | Non-rate-sensitive | 300 | $(5 \%)$ |  |
| Nonearning | 100 |  | Equity | 100 |  |  |
| Total assets | Rs 700 |  | Total liabilities and equity | Rs 700 |  |  |

i) What is the gap?
ii) How much will net interest income change if interest rates fall by 200 basis points?
iii) What changes in portfolio composition would you recommend to management if you expected interest rates to increase? $(3 \times 2+4)$

## Group C

## Analytical Answer Questions

## Attempt any Two questions from Group C

( $2 \times 15=30$ )
17. Why two banks so heavily regulated? Discuss with reference to the salient features of Bank and Financial Institutions Act, 2006. (5+10)
18. Average costs of funds for ABC Bank Ltd in 2015 are as follows:

| Sources of Funds | Average Amount Available <br> for Investment (Rs millions) | Average Cost (\%) |
| :--- | :---: | :--- |
| Deposits: |  |  |
| Demand deposits | Rs 15.00 | $5.00 \%$ |
| Interest bearing checking | 30.00 | 7.00 |
| Passbook savings | 10.00 | 8.00 |
| Small CDs | 20.00 | 9.00 |
| Large CDs | 30.00 | 10.00 |
| Eurodollar CDs | 5.00 | 10.40 |
| Non-deposits |  |  |
| Borrowing from central bank | 6.00 | 8.00 |
| Repos | 10.00 | 8.50 |
| Discount widow advances | 4.00 | 7.50 |
| Other liabilities | 12.00 | 10.00 |
| Stock holders equity | 12.00 | 15,00 |

a) What is the weighted average cost of deposit funds?
b) What is the weighted average cost of nondeposit funds?
c) Why cost of nondeposit funds is less than the cost of deposit funds?
d) What is the overall cost of total funds?
e) Which sources of funds had average costs that exceeded the weighted average cost of capital? (3 x5)
19. Following are the information of a hypothetical commercial bank ( Rs in thousands):

| Common Stock | Rs 30,000 |  |
| :--- | ---: | ---: |
| Perpetual preferred stock | 2,000 | 5,000 |
| Surplus |  | 100,000 |
| Undivided profit | 1,000 |  |
| Capital reserves |  | 5,000 |
| Reserves for loan and lease losses | 2,000 |  |

a) What is Tier 1 capital?
b) What is Tier 2 capital?
c) What is the total capital?
d) If the bank has total risk weighted assets (in thousands) of Rs 2,840,000, does it have adequate capital under regulatory standard?
e) If risk adjusted assets equal Rs $2,000,000$ (thousand), is capital adequate? (5x3)

# Fundamentals of Investment 

Model Questions - 2072
Program: BBS
Time: 3 Hours
F.M.: 100

Code: FIN 253
P.M.: 35

The objective of the model questions is to give an overview of the nature of questions that may be asked in the examination. The users of the model are requested to take note of the followings:

- Questions will be divided into three groups. There will be 10 questions carrying two marks each in Group A. Students will have to attempt all questions in this group. Group B consists of six questions carrying 10 marks each. Out of them students will attempt only five questions. And Group C consists of three questions carrying 15 marks each, out of which students will attempt two questions. This structure of questions will be maintained unless otherwise decided and notified.
- Questions in each Group may consist of both theory and numerical questions. But, please note that the proportion of theory and numerical given in the model is only an indication which may vary from time to time.

Candidates are required to give the answers in their own words as far as practicable. Figures in the margin indicate the full marks.

## Group A <br> Brief Answer Questions

Attempt All questions from Group A
$(10 \times 2=20)$

1. Describe the investment process.
2. List important investment vehicles available in Nepal.
3. Differentiate between broker market and dealer market.
4. Describe briefly the criteria for selecting a suitable broker.
5. Briefly describe the pros and cons of using internet as investment tool.
6. Define and give examples of diversifiable and nondiversifiable risk.
7. What is call option?
8. Using semiannual compounding, find the price of a 7 percent, 10 -year bond priced to yield 8 percent.
9. Your portfolio has a beta equal to 1.3 . It returned 12 percent last year. The market returned 10 percent; the risk-free rate is 6 percent. Calculate Treynor's measure for your portfolio and the market.
10. Why is Jensen's measure (alpha) generally preferred over the measures of Sharpe and Treynor for assessing portfolio performance?

# Group B <br> Descriptive Answer Questions 

Attempt any Five questions from Group B $(5 \times 10=50)$
11. What are the main investment attractions of put and call options? What are the risks?
12. Marlene Bellamy purchased 300 shares of Writeline Communications stock at $\$ 55$ per share, using the prevailing minimum initial margin requirement of $50 \%$. She held the stock for exactly 4 months and sold it without any brokerage costs at the end of that period. During the 4 -month holding period, the stock paid $\$ 1.50$ per share in cash dividends. Marlene was charged $9 \%$ annual interest on the margin loan. The minimum maintenance margin was $25 \%$.
a. Calculate the initial value of the transaction, the debit balance, and the equity position on Marlene's transaction.
b. For each of the following share prices, calculate the actual margin percentage, and indicate whether Marlene's margin account would have excess equity, would be restricted, or would be subjected to a margin call.
(1) $\$ 45$
(2) $\$ 70$
(3) $\$ 35$
13. Carla Sanchez wishes to develop an average or index that can be used to measure the general behavior of stock prices over time. She has decided to include 6 closely followed, high-quality stocks in the average or index. She plans to use August 15, 1981, her birthday, as the base and is interested in measuring the value of the average or index on August 15, 2005, and August 15, 2008. She has found the closing prices for each of the 6 stocks, A through $F$, at each of the 3 dates and has calculated a divisor that can be used to adjust for any stock splits, company changes, and so on that occurred since the base year, which has a divisor equal to 1.00 .

|  | Closing stock price |  |  |
| :--- | :---: | :---: | :---: |
| Stock | August 15, <br> 2008 | August 15, <br> 2005 | August 15, <br> 1981 |
| A | $\$ 46$ | $\$ 40$ | $\$ 50$ |
| B | 37 | 36 | 10 |
| C | 20 | 23 | 7 |
| D | 59 | 61 | 26 |
| E | 82 | 70 | 45 |
| F | 32 | 30 | 32 |
| Divisor | 0.70 | 0.72 | 1.00 |

Note: The number of shares of each stock outstanding has remained unchanged at each of the 3 dates. Therefore, the closing stock prices will behave identically to the closing market values.
a. Using the data given in the table, calculate the market average, using the same methodology used to calculate the Dow averages, at each of the 3 dates-the $15^{\text {th }}$ of August 1981, 2005, and 2008.
b. Using the data given in the table and assuming a base index value of 10 on August 15, 1981, calculate the market index, using the same methodology used to calculate the S\&P indexes, at each of the 3 dates.
c. Use your findings in part a and b to describe the general market condition-bull or bearthat existed between August 15, 2005, and August 15, 2008.
d. Calculate the percentage changes in the average and index values between August 15, 2005, and August 15,2008 . Why do they differ?
14. Rose Berry is attempting to evaluate 2 possible portfolios consisting of the same 5 assets but held in different proportions. She is particularly interested in using beta to compare the risk of the portfolios and, in this regard, has gathered the following data:

|  |  | Portfolio Weights (\%) |  |
| :---: | :---: | :---: | :---: |
| Asset | Asset <br> Beta | Portfolio A | Portfolio <br> B |
| 1 | 1.30 | 10 | 30 |
| 2 | 0.70 | 30 | 10 |
| 3 | 1.25 | 10 | 20 |
| 4 | 1.10 | 10 | 20 |
| 5 | 0.90 | 40 | 20 |
|  | Total | $\mathbf{1 0 0}$ | $\mathbf{1 0 0}$ |

a. Calculate the betas for portfolios A and B.
b. Compare the risk of each portfolio to the market as well as to each other. Which portfolio is more risky?
15. Assume that the following quote for the Alpha Beta Corporation (a NYSE stock) was obtained from the Thursday, April 10, issue of the Wall Street Journal.

$$
\begin{array}{llllllll}
254.00 & 150.50 & \text { AlphaBet } 6.00 & 3.1 & 15 & 755 & 189.12 & 3.88
\end{array}
$$

Given this information, answer the following questions.
a. On what day did the trading activity occur?
b. At what price did the stock sell at the end of the day on Wednesday, April 9?
c. What is the firm's price/earning ratio? What does that indicate?
d. What is the last price at which the stock traded on the date quoted?
e. How large a dividend is expected in the current year?
f. What are the highest and lowest prices at which the stock traded during the latest 52week period?
g. How many shares of stock were traded on the day quoted?
h. How much, if any, of a change in price took place between the day quoted and the immediately preceding day? At what price did the stock close on the immediately preceding day?
16. You've uncovered the following per-share information about a certain mutual fund.
200620072008

Ending share prices:

| Offer | $\$ 46.20$ | $\$ 64.68$ | $\$ 61.78$ |
| :--- | :---: | :---: | :---: |
| NAV | 43.20 | 60.47 | 54.75 |
| Dividend income | 2.10 | 2.84 | 2.61 |

Beginning share prices:

| Offer | 55.00 | 46.20 | 64.68 |
| :--- | :--- | :--- | :--- |
| NAV | 51.42 | 43.20 | 60.47 |

On the basis of this information, find the fund's holding period return for 2006, 2007, and 2008. (In all 3 cases, assume you buy the fund at the beginning of the year and sell it at the end of each year.) In addition, find the fund's average annual compound rate of return over the 3-year period, 2006-2008. What would the 2007 holding period return have been if the investor had initially bought 500 shares of stock and reinvested both dividends and capital gains distributions into additional shares of the fund at an average price of $\$ 52.50$ per share?

## Group C <br> Analytical Answer Questions

Attempt any Two questions from Group C $(2 \times 15=30)$
17. What appeal do bonds hold for individual investors? How might you, you as a bond investor, use information about the term structure of interest rates and yield curves when making investment decisions?
18. Over the past 5 years, Molly has slowly built a diversified portfolio of common stock. Currently her portfolio includes 20 different common stock issues and has a total market value of $\$ 82,500$. Molly is at present considering the addition of 50 shares of one of two common stock issues -X or Y. To assess the return and risk of each of these issues, she has gathered dividend income and share price data for both over each of the last 5 years ( 204 through 2008). Molly's investigation of the outlook for these issues suggest that each will, on average, tend to behave in the future just as it has in the past. She therefore believes that the expected return can be estimated by finding the average holding period return over the past 5 years for each of the stocks. The historical dividend income and stock price data collected by Molly are given in the accompanying table.

|  |  | Stock X |  | Stock Y |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Share price |  | Share price |  |  |
| Year | Dividend <br> income | Beginning | Ending | Dividend <br> income | Beginning | Ending |
| 2004 | 1.6 | 23 | 26 | 2 | 22 | 23 |
| 2005 | 1.7 | 26 | 25 | 2.1 | 23 | 23 |
| 2006 | 2 | 25 | 24 | 2.2 | 23 | 24 |
| 2007 | 2.1 | 24 | 27 | 2.3 | 24 | 25 |
| 2008 | 2.2 | 27 | 30 | 2.4 | 25 | 25 |

a. Determine the holding period return for each stock in each of the preceding 10 years. Find the expected return for each stock, using the approach specified by Molly.
b. Use the HPRs and expected return calculated in question ' $a$ ' to find both the standard deviation and coefficient of variations of the HPRs for each stock over the 5-year period 2004 to 2008 .
c. Use your findings to evaluate and discuss the return and risk associated with stocks X and Y . Which stock seems preferable? Expain.
d. Ignoring her existing portfolio, what recommendations would you give Molley with regard to stock X and Y ?
19. Assume a major investment service has just given Oasis Electronics its highest investment rating, along with a strong buy recommendation. As a result, you decide to take a look for yourself and to place a value on the company's stock. Here's what you find: This year, Oasis paid its stockholders and annual dividend to $\$ 3$ a share, but because of its high rate of growth in earnings, its dividends are expected to grow at the rate of $12 \%$ a year for the next 4 years and then to level out at $9 \%$ a year. So far, you've learned that the stock has a beta of 1.80 , the risk-free rate of return is $6 \%$, and the expected return on the market is $11 \%$. Using the CAPM to find the required rate of return, put a value on this stock.

## FIN 254: Insurance and Risk Management

Time: 3 Hours Full Marks: 100
Pass Marks: 35
Candidates are required to give their answers in their own words as far as practicable.

## Group A

## Brief Answer Questions.

## Attempt all Questions

1. Differentiate between peril and hazard.
2. What is risk management?
3. How can we identify risk?
4. What is premature death?
5. Give the meaning of health care insurance.
6. Why automobile insurance is essential?
7. Give the meaning of a personal umbrella policy.
8. Write in short about commercial auto insurance.
9. Define the term social insurance.
10. Why workers' compensation insurance is important?

## Group B

Descriptive Answer Questions.

## Attempt any five questions ( $5^{*} 10$ )

11. What is insurance? Discuss the benefits and costs of insurance to the society.
12. Identify the challenges of health insurance in Nepal? Also discuss how they can be met? $(5+5)$
13. Explain the need and issues of social insurance in Nepal.
14. Sitara Company began operations this year. The company retains property losses and estimates that property losses will be Rs100, 000 this year. Property losses are expected to increase at a rate of 30 percent per year for the next two years. Sitara expects to pay for 80 percent of property losses in the year the loss occurs, with the other 20 percent paid in the following year. How much in retained losses will Sitara have to pay this year and each of the next two years? (10)
15. The following information is given to you.

| Possible outcomes for Damages | Probability |
| :--- | :--- |
| Rs0 | .50 |
| 500 | .30 |
| 1,000 | .10 |
| 5,000 | 0.06 |
| 10,000 | 0.04 |

a. What is the expected value for damages for the distribution?
b. Calculate variance and standard deviation in this distribution. Also write why these are useful measure of risk?
c. Suppose that L is a random variable equal to property losses from a hurricane and that L has the following probability distribution:
Rs 90,000 with probability 0.02
Rs 10,000 with a probability 0.06
Rs 0 with probability 0.92
What is the expected value of hurricane losses i.e. expected loss?
16. Ashmita owns a retail shoe store that is insured for Rs120, 000 under the business income (and extra expense) coverage form. Because of a fire, Ashmita was forced to close the store for three months. Based on past and projected future earnings,Ashmita expected to earn a net income of Rs30, 000 during the three month shut down period if the loss had not occurred. During the shutdown period, there were no revenues, and Ashmita had continuing expenses of Rs10, 000.
How much will Ashmita recover for the business income loss? Explain your answer. (8+2)

## Group C

## Analytical Answer Questions

## Attempt any two questions ( $\mathbf{2}^{*}$ 15)

17. Why is it essential to regulate in the insurance business? Also discuss the role and functions of insurance board in regulating insurance in Nepal.
18. A. Prasanna purchased a dining room set for Rs5,000and insured the furniture on an actual cash value basis. Three years later, the set was destroyed in a fire. At the time of loss, the property had depreciated in value by 50 percent. The replacement cost of a new dining room set at the time of loss was Rs 6,000 . Ignoring any deductible, how much will Prasanna collect from her insurer?
B. Kumud, age 35, is a single parent and has a one year old son. She earns Rs45, 000 annually as a marketing analyst. Her employer provides group life insurance in the amount of twice the employee's salary. Kumud also participates in her employer's 401(k) plan. She has the following financial needs and objectives.

- Funeral costs and uninsured medical bills Rs10,000
- Income support for her son, Rs2,000 monthly for 17 years
- Pay off mortgage on home 150,000
- Pay off car loan and credit card debts 15,000
- College education fund for son

Kumud has the following financial assets:

- Checking account 2,000
- IRA account 8,000
- 401(K) Plan 25,000
- Individual life insurance 25,000
- Group life insurance 90,000
i. Ignoring the availability of social security survivor benefits, how much additional life insurance, if any, should Kumud purchase to meet her financial goals based on the needs approach?(Assume that the rate of return earned on the policy proceeds is equal to the rate of inflation).
ii. How much additional life insurance, if any, is needed if estimated social security survivor benefits in the amount of Rs800 monthly are payable until her son attains age 18 ?

19. A. Nisa, age 25 is considering the purchase of aRs 20,000 participating ordinary life insurance policy. The annual premium is Rs248.60. Projected dividends over the first 20 years are Rs814. The cash value at the end of 20 years is Rs4314. If the premiums are invested at 5 percent interest, they will accumulate to Rs8,631 at the end of 20 years. If the dividends are invested at a 5 percent interest, they will accumulate to Rs 1,163 at the end of 20 years. ARs1 deposit at the beginning of each year at 5 percent interest will accumulate to Rs34.719 at the end of 20 years. (2.5+2.5+2.5)
i. Based on the traditional net cost method, calculate the net cost per Rs1,000 per year.
ii. Based on the surrender cost index, calculate the net cost per Rs1, 000 per year.
iii. Based on the net payment cost index, calculate the net cost per Rs1,000 per year.
B. Mention the requirements of an insurance contract. Discuss in brief about life insurance contractual provisions.
