NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF INSURANCE AND ACTUARIAL SCIENCE
B. COM (HON) DEGREE RISK MANAGEMENT AND INSURANCE

INVESTMENT AND PORTFOLIO MANAGEMENT CIN 4203

APRIL/MAY 2006 SECOND SEMESTER EXAMINATION

DURATION 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. SECTION A: Compulsory
2. SECTION B: Answer any 3 out of 5 questions.
3. Candidates may use a non-programmable calculator
4. Some questions may require use of PVIF and PVIFA tables.
5. **This examination paper remains the property of the National University of Science and Technology and may not be removed from the examination room**

SECTION A- MULTIPLE CHOICE QUESTIONS
ANSWER ALL THE QUESTIONS. [50 MARKS]

1. The most important determinant of wealth creation is:

   (1) fundamental analysis
   (2) technical analysis
   (3) asset allocation
   (4) portfolio management

2. The beginning value of an investment on a Zimbabwe Stock Exchange share is $2,000,000. After three years the ending value is $3,040,000. The annual holding period (HPY) is closest to:

   (1) 1.52%
   (2) 14.96%
   (3) 20.48%
   (4) 26.00%

3. A retired investor has $12.4 billion to invest. The investor should invest in:

   (1) ordinary shares only
   (2) ordinary shares, art and techniques
   (3) real estate and money market funds
   (4) ordinary shares, warrants and antiques

4. An investor bought a share that is listed on both the Zimbabwe Stock Exchange (ZSE) and the London Stock Exchange (LSE). The share was

bought for $73.20 on the ZSE and can be sold at $82.80 on the LSE. This is an example of …………..

(1) a market order
(2) arbitrage
(3) minimum cover
(4) a bear sale

5. Devuli Corporation's stock has a beta of 1.5. If the market risk premium is 5 percent and the required rate of return on the market is 15 percent, what is Devuli's required rate of return?

(1) 15.5%
(2) 16.0%
(3) 16.5%
(4) 17.0%
(5) 17.5%

6. A market is efficient if:

(1) timely and accurate information is available
(2) a large number of participants analyse and value securities
(3) price continuity does not prevail
(4) 1 and 2 above

7. Stock A has a beta of 1.2, Stock B has a beta of 0.6, the expected rate of return on an average stock is 12 percent, and the risk-free rate of return is 7%. By how much does the required return on the riskier stock exceed the required return on the less risky stock?

(1) 4.00%
(2) 3.25%
(3) 3.00%
(4) 2.5%
(5) 3.75%

8. Mr Kudzai Sithole called his broker and instructed that 1000 Old Mutual shares be sold at $530,000. Assume Old Mutual shares are currently trading at $526,807. Mr Sithole expected the share price to decline to $510,843 and borrowed the shares from Imara Securities. This is an example of a :

(1) limit order
(2) short sale
(3) margin transaction
(4) special order

9. The covariance between share A and the market is 0.9 and the variance of the market is 0.8. The beta of the share equals:

   (1) 0.10
   (2) 0.20
   (3) 0.88
   (4) 1.13

10. An analyst has gathered the following information: Expected return on the market = 15%, Risk-free rate = 8%, Estimated rate of return of Apex share = 17%, Beta of Apex share = 1.25%. Based on the above information which of the following statements is correct?. The Apex share is:

   (1) properly valued
   (2) overvalued by 0.25 percentage points
   (3) overvalued by 1.40 percentage points
   (4) undervalued by 0.25 percentage points

11. The constant rate of dividend growth for OK Zimbabwe Limited is 8%. The firm is expected to pay an annual dividend (D1) of $2.50 next year. The required rate of return (ks) equals 18%. The value of the share (Po) equals …………

   (1) $9.62
   (2) $13.89
   (3) $25.00
   (4) $31.25

12. Cairns Foods Limited is expected to have earnings per share of $2.50 next year. The average price/ earnings ratio for firms in the food sector is 18. The value of the firm's ordinary shares is ………………… each.

   (1) $7.20
   (2) $13.89
   (3) $20.50
   (4) $45.00

13. Expansionary monetary policy leads to:

   (1) lower taxes, increased consumption and higher imports
   (2) lower interest rates, increased consumption and higher net imports
   (3) lower interest rates, increased consumption and lower net exports
   (4) lower interest rates, increased consumption and an appreciation of the domestic currency.
   (5) None of the above

14. Which of the following should result in a higher industry Price Earnings (P/E)?

    (1) higher required rate of return
    (2) decrease in an industry's business risk
    (3) decrease in an industry's growth rate
    (4) increase in an industry's liquidity risk

15. Dunlop Tyres Ltd is expected to earn $2.00, $2.20 and $2.40 per share in each of the next three years respectively. At the end of the third year the stock is expected to sell at a current yield of 3%. It is Dunlop's policy to employ a dividend payout ratio of 25%. If an investor demands a 15% return for investing in Dunlop stock how much should the investor be willing to pay for the shares today?

    (1) $14.89
    (2) $13.25
    (3) $18.25
    (4) $12.63

16. Newly issued treasury bills are yielding 6%. For the past several months, the rate of inflation has been averaging 4%. During the next several months, the rate of inflation is expected to average 5%. The real risk free-rate should be approximately:

    (1) 1.5%
    (2) 2.0%
    (3) 1.0%
    (4) 6.0%

17. Technical analysis stands in opposition to which form of the efficient market hypothesis?

    (1) weak
    (2) semi-strong
    (3) strong
    (4) super-strong

18. Bonds issued by an institution , denominated in the local currency of the institution , and then sold outside of the country of that institution, are called:

    (1) Eurobonds
    (2) Foreign bonds
    (3) Domesticated bonds
    (4) Yankee bonds

19. Which of the following is not an assumption of yield to maturity?

    (1) Any and all coupon payments received are immediately reinvested for the remainder of the bonds lifespan.
    (2) Coupons are reinvested at an interest rate equivalent to the bonds own internal yield to maturity.
    (3) The bond is held until the maturity when the face value is repaid in full
    (4) All the above are assumptions of yield to maturity.

20. A call option on a share is currently selling for $35. The call option is in the money by $3. What is the strike price of the call option?

    (1) $32
    (2) $35
    (3) $38
    (4) $42

21. Which of the following statements is/ are correct?

    (i) American options can only be exercised at expiration
    (ii) European options can be exercised on or before expiration
    (iii) Most options issued are American options
    (iv) American option prices will be equal to or bigger than European options

(1) all of the above
(2) none of the above
(3) (i) and (ii) only
(4) (iii) and (iv) only

22. Which of the following statements is/ are false?

    (1) It is often said that the share selection decision is the most important decision a portfolio manager faces
    (2) Index funds have an advantage over actively managed portfolios in that very low expenses are associated with the running of an index portfolio.
    (3) A bond indexing strategy entails the creation of a bond portfolio that will imitate a given bond index such as the Standards and Poors.
    (4) With relative valuation, the focus is on finding shares for the portfolio that are inexpensive relative to how similar shares are currently being priced by the market

23. Shangani Limited has sales of $2 million dollars per year, all of which are credit sales. Its days sales outstanding is 42 days. What is its average accounts receivable balance?

(1) $233,333
(2) $266,667
(3) $333,333
(4) $350,000
(5) $366,667

Use the following information in answering the following (2) questions.

The administrator of a large Pension Fund wants to evaluate the performance of four portfolio managers. Each portfolio manager invests only in ordinary shares in Zimbabwe. Assume that during the most recent 5-year period , the average annual total rate of return including dividends on the ZSE was 14 percent , and the average normal rate of return on government Treasury bills was 8%. The following table shows risk and return measures for each portfolio;

Portfolio	Annual Return	Standard Deviation	Beta
A	0.17	0.20	1.10
B	0.24	0.18	2.10
ZSE All-share	0.14	0.12	1.00

24. The Treynor portfolio performance measure for portfolio A is ……………

(1) 0.082
(2) 0.099
(3) 0.155
(4) 0.450

25. The Sharpe portfolio performance measure for portfolio B is ………………

(1) 0.076
(2) 0.126
(3) 0.336
(4) 0.888

SECTION B

Answer any four (4) questions from section B.

Question 1

Prudential Life Assurance Zimbabwe Limited had the following investment mix at **market values** as at 31 December 2005.

ASSET TYPE	PERCENTAGE HELD
Property	9.3%
Fixed Interest	3.6%
Money Market	4.1%
Equities	83.0%
TOTAL	**100%**

Prudential declared a bonus of 1250% on its guaranteed pension fund (625% vested and 625% non vested). Annual inflation at end of December 2005 was 585.8%.

Comment on the above, do you agree or disagree with the investment strategy? Justify your position. **[Total: 12.5 marks]**

Question 2

Equity warrants are not as valuable as an otherwise identical call option on the share of the same firm. Explain why this must be the case. Also, what is the incentive for a firm to issue a warrant rather than to issue shares directly?.

[Total: 12.5 marks]

Question 3

Explain the **three-step, top-down valuation process** as well as the importance of this valuation process.

[Total: 12.5 marks]

Question 4

Define "default risk". Does default risk occur before , when, or after a corporation is declared bankrupt?. Explain.

[Total: 12.5 marks]

Question 5

Do stock prices on the Zimbabwe Stock Exchange (ZSE) represent fair value?. Can insider trading distort the prices and what can be done to enforce ethical behaviour on key participants of the ZSE?

[Total: 12.5 marks]