## THE 1ST ANNUAL FINANCE AND INVESTMENT MANAGEMENT OLYMPIAD

## FIMO PAPER ROUND TWO

- **1.** You have been provided with a question paper and an answer sheet.
- **2.** The question paper consists of 52 multiple choice questions. Duration of paper is 2 hours.
- **3.** Answer all questions on the special answer sheet provided.
- **4.** Each question shows **different** alternative answers (A,B,C,D etc.).
- 5. Choose the correct answer to each question by marking  $\bullet$  on the answer sheet, using a pencil.
- **6.** After completing question 52 you may hand in your answer sheet to your educator.
- 7. You do not have to fill in a student number on the answer sheet.
- 8. Please write your school name in the "Course code" blocks.

Good luck with the first round paper for the Finance and Investment Management Olympiad. You received a question paper as well as a red answer sheet.









- 1. \_\_\_\_\_\_ is the chance of loss or the variability of returns associated with a given asset.
  - A. Return
  - B. Value
  - C. Risk
  - D. Probability
- 2. Financial instruments with maturities of more than one year are traded in the
  - A. Capital Market
  - B. Equity Market
  - C. Derivative Market
  - D. Money Market
- 3. The \_\_\_\_\_ of an asset is the change in value plus any cash distributions expressed as a percentage of the initial price or amount invested
  - A. Return
  - B. Value
  - C. Risk
  - D. Probability
- 4. Last year Buhle bought 100 shares in Google Inc common stock for R53 per share. The dividends he received during the year was R1.45 per share. The stock is currently worth R60 per share. What rate of return did Buhle earn over the year?
  - A. 11.2%
  - B. 15.9%
  - C. 14.1%
  - D. 13.7%
- 5. The expected return on a common stock is composed of:
  - A. both dividend yield and capital appreciation
  - B. capital appreciation
  - C. dividend yield
  - D. none of the above
- 6. What dividend yield would be reported in the financial press for a stock that currently pays a R1 dividend per quarter and the most recent stock price was R40?
  - A. 10%
  - B. 2.5%
  - C. 15%
  - D. 4%
- 7. Which one of the following is the financial statement that summarizes a firm's revenue and expenses over a period of time?
  - A. income statement
  - B. balance sheet
  - C. statement of cash flows
  - D. tax reconciliation statement
  - E. market value report

- 8. Five areas that financial ratios concentrate on are:
  - A. liquidity, profitability, debt, efficiency, market related
  - B. profitability, strategy, liquidity, auditing, share prices
  - C. liquidity, current ratio, quick ratio, interest cover, dividend cover
  - D. market related, share prices, dividend policy, debt policy, strategy
  - E. none of the above
- 9. Current assets divided by current liabilities is the definition of the:
  - A. interest cover ratio
  - B. dividend cover ratio
  - C. quick ratio
  - D. current ratio
  - E. none of the above
- 10. The quick ratio is defined as:
  - A. current assets divided by current liabilities
  - B. current assets divided by total debt
  - C. current assets less inventory, divided by total liabilities
  - D. current assets less inventory, divided by current liabilities
  - E. none of the above
- 11. Earnings per share is affected by:
  - A. net income
  - B. number of shares
  - C. dividends
  - D. a & b, but not c
  - E. a, b & c
- 12. The price to earnings ratio measures:
  - A. the rationality of the stock market
  - B. the liquidity of the company
  - C. the public's perception of the company
  - D. the ethics of the company
  - E. none of the above
- 13. Which of the following forms part of property investments:
  - A. Residential apartment building
  - B. Office Space
  - C. A Farm
  - D. All of the above

- 14. Pick n Pay Ltd has sales of R500 0000 000, operating profit of R50 000 000, interest expense of R10 000000, tax expense of R20 000 000, total equity of R125 000 000 and total debt of R275 000 000. Their debt to assets ratio is:
  - A. 50 %;
  - B. 65 %;
  - C. 68.75%
  - D. 220 %
  - E. None of the above
- Pick n Pay Ltd has sales of R500 0000 000, operating profit of R50 000 000, interest expense of R10 000000, tax expense of R20 000 000, total equity of R125 000 000 and total debt of R275 000 000. Their return on equity is:
  - A. 8%
  - B. 10%
  - C. 12.5%
  - D. 16%
- 16. Pick n Pay Ltd has current assets that consist of cash: R20 000 000, receivables: R70 000 000 and inventory: R90 000 000. Current liabilities are R75 000 000. The current ratio is:
  - A. 2.0:1
  - B. 2.2:1
  - C. 1.8:1
  - D. 2.4:1
- 17. Pick n Pay Ltd has current assets that consist of cash: R20 000 000, receivables: R70 000 000 and inventory: R90 000 000. Current liabilities are R75 000 000. The quick ratio is:
  - A. 1.2:1
  - B. 1.0:1
  - C. 0.8:1
  - D. 1.7:1
- Pick n Pay Ltd has sales of R500 0000 000, operating profit of R50 000 000, interest expense of R10 000000, tax expense of R20 000 000, total equity of R125 000 000 and total debt of R275 000 000. Their return on assets is:
  - A. 8%
  - B. 5%
  - C. 10%
  - D. 16%
- 19. Net income divided by shareholders' equity is the definition of:
  - A. return on assets
  - B. return on equity
  - C. return on sales
  - D. asset turnover

- 20. In which case will an investor receive the most interest?
  - A. 10%, compounded annually
  - B. 10%, compounded monthly
  - C. 10%, compounded continuously
  - D. 10%, compounded daily
- 21. When a banker quotes an interest rate of 6% compounded semi-annually, he is quoting the \_\_\_\_\_\_ interest rate?
  - A. Equivalent Annual Rate
  - B. Nominal Rate
  - C. Effective Rate
  - D. None of the above
- 22. Annuities
  - A. are a stream of equal payments at unequal time intervals
  - B. are a stream of equal payments at equal time intervals
  - C. are a stream of equal payments that continue forever
  - D. all of the above.
- 23. The present value of a future amount:
  - A. will always be less than the future amount
  - B. can be calculated precisely if the discount rate and number of periods is known
  - C. is worth less than the future value
  - D. both a. and b. above are true
- 24. You are considering an investment in a 6-year annuity. At the end of each year for the next six years you will receive cash flows of R90. The initial investment is R414.30. What rate of return are you expecting from this investment? (Annual Compounding)
  - A. 8.14%
  - B. 9.26%
  - C. 12.05%
  - D. 21.14%
- 25. You make equal R400.00 monthly repayments on a loan. The annual interest is 15%, compounded monthly. The loan is for 12 years. What is the amount of the original loan?
  - A. R26 651.09
  - B. R25 156.21
  - C. R22 657.00
  - D. R24 448.40

- 26. You plan to accumulate R500 000 over a period of 14 years by making equal annual deposits in an account that pays an annual interest rate of 8% (assume all payments will occur at the beginning of each year). What amount must you deposit each year to reach your goal?
  - A. R18 052.37
  - B. R19 118.91
  - C. R20 497.98
  - D. R22 342.79
- 27. Your credit card company quotes you a rate of 14.9%. Interest is billed monthly. What is the actual rate of interest you are paying?
  - A. 13.97%
  - B. 14.90%
  - C. 15.48%
  - D. 15.96%
- 28. What will \$247,000 grow to be in 9 years if it is invested today in an account with an annual interest rate of 11%?
  - A. \$631 835.12
  - B. \$2223000.00
  - C. \$491 530.00
  - D. \$2264166.66
- 29. At what annual interest rate must \$137,000 be invested so that it will grow to be \$475,000 in 14 years?
  - A. 2.41%
  - B. 17.24%
  - C. 9.29%
  - D. 2.95%
- 30. You are offered an investment with a quoted annual interest rate of 13% with quarterly compounding of interest. What is your effective annual interest rate?
  - A. 113.65%
  - B. 113.65 divide by 4 compounding periods
  - C. 113.65 100
  - D. 113.65 compounded quarterly
- 31. You have just won the Georgia Lottery with a jackpot of \$40 000 000. Your winnings will be paid to you in 26 equal annual instalments with the first payment made immediately. If you feel the appropriate annual discount rate is 8%, what is the present value of the stream of payments you will receive?
  - A. \$1 538 461.53
  - B. \$1230769.92
  - C. \$ 17 961 194.14
  - D. \$14769923.07

- 32. At a rate of 8%, what is the present value of the following cash flow stream? \$0 at Time 0; \$100 at the end of Year 1; \$300 at the end of Year 2; \$0 at the end of Year 3; and \$500 at the end of Year 4?
  - A. \$717.31
  - B. \$771.31
  - C. \$900.00 compounded yearly
  - D. \$900.00 compounded 55 times
- 33. Which of the following is a capital market instrument?
  - A. 1000 shares in Microsoft Ltd
  - B. Non Negotiable Certificates of Deposit
  - C. A certificate of deposit
  - D. Central Bank Securities
- 34. Which of the following is not financial instrument types:
  - A. Evidences of shares
  - B. Evidences of deposits
  - C. Evidences of forex
  - D. Evidences of debt
- 35. Mathis Ltd has the following information for the year ending 28 February:

| Profit for the year         | R3 200 000 |
|-----------------------------|------------|
| Ordinary dividends paid     | R840 000   |
| Number of ordinary shares   | 14 000 000 |
| Market Price at 28 February | R1,90      |

What is the dividend yield for Mathis Ltd as at 28 February?

- A. 3.3 times
- B. 3,2%
- C. 6%
- D. 23%
- 36. The gross profit margin ratio measures?
  - A. Return on Equity
  - B. Return on Assets
  - C. Profitability before considering the effects of financing decisions
  - D. Profitability after the cost of sales
  - E. All of the above
- 37. If the capital gearing ratio is high for a company, it indicates that it has:
  - A. Low debts
  - B. High preference capital
  - C. High equity
  - D. Low debt equity ratio.

- 38. If total planned spending  $(E_p)$  exceeds GDP, we expect that:
  - A. Inventories will be falling.
  - B. Inventories will be rising.
  - C. GDP will be falling.
  - D. Government expenditures must be rising.
- 39. If ABC reported its sales for the year as R527 000 with trade receivables of R65 000, calculate its receivable days?
  - A. 30 days
  - B. 55 days
  - C. 45 days
  - D. 60 days
- 40. Actual data confirm that:
  - A. PE ratios are more appropriate in low growth rate situations
  - B. Either PE or PEG ratios are appropriate in low growth rate situations
  - C. PEG ratios are appropriate in higher supernormal growth situations
  - D. Both A and C are correct.

## FIMO Paper - Round Two MEMO

| 1  | С | 21 | B |
|----|---|----|---|
| 2  | Α | 22 | B |
| 3  | Α | 23 | D |
| 4  | B | 24 | Α |
| 5  | Α | 25 | Α |
| 6  | Α | 26 | B |
| 7  | Α | 27 | D |
| 8  | Α | 28 | Α |
| 9  | D | 29 | С |
| 10 | D | 30 | С |
| 11 | D | 31 | С |
| 12 | С | 32 | Α |
| 13 | D | 33 | Α |
| 14 | С | 34 | С |
| 15 | D | 35 | В |
| 16 | D | 36 | D |
| 17 | Α | 37 | В |
| 18 | В | 38 | Α |
| 19 | В | 39 | С |
| 20 | С | 40 | D |