

THE NATIONAL ANNUAL FINANCE AND INVESTMENT MANAGEMENT OLYMPIAD

2016 FIMO Paper Round One

1. You have been provided with a question paper and an answer sheet.
2. The question paper consists of 60 multiple choice questions.
Duration of paper is 2 hours.
3. Answer all questions on the special answer sheet provided.
4. Each question shows **FOUR** alternative answers (A,B,C, or D).
5. Choose the correct answer to each question by marking ● on the answer sheet, using a pencil.
6. After completing question 60 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. The financial system is made up of different components. Which of the following is NOT a component of the financial system?

- I Financial Instruments
- II Financial markets
- III Lenders and borrowers
- IV Price discovery

- A I and II
- B I, II and III
- C IV
- D All above the above

2. Which of the following is TRUE regarding financial exchanges?

- A A financial intermediary that manages funds on behalf of principals
- B Allow broker-dealers to facilitate trading in securities
- C Analyse relevant financial and economic data pertaining to the issuers of securities and assign ratings
- D Regulate and supervise all players in the financial system

3. The central bank of South Africa (SARB) does all of the following except

- A has the jurisdiction to set and implement monetary policy
- B maintains stability within the industry and protects financial consumers
- C controls domestic interest rates
- D manages and governs the financial services sector

4. Which of the following is NOT part of the 'Professionalism' standard of professional conduct?

- A Independence and Objectivity
- B Knowledge of the law
- C Misrepresentation
- D Record retention

5. Which of the following is NOT part of the 'Duties to clients' standard of professional conduct?

- A Communication with Clients and Prospective Clients
- B Fair Dealing
- C Preservation of confidentiality
- D Prudence and Care

6. If you invest R100 at a 20% annually compounded interest, what will its value be after three years?

- A 172.80
- B 100
- C 160
- D None of the above

7. Bear Visagie has just renewed his contract with the Tornado's rugby club for an annual payment of R6 million per year for the next 5 years. The Mail & Guardian reports the contract value as R30 million. If the discount rate is 12%, what is the true present value of the contract?

- A R38,117,084
- B R30,000,000
- C R21,628,657
- D R17,022,806

8. You are quoted an interest rate of 12% compounded monthly. What is the effective rate of interest?

A 12.68%
B 11.39%
C 12%
D None of the above

9. If you invested R998 today over a period of 6 years, how much will it be worth if you could earn a rate of 10.5% compounded annually?

A R1 049
B R1 052
C R1 817
D R1 315

10. You are promised an amount of R70 000 in 4 years' time. Currently you could earn 7% interest compounded monthly. What is the amount worth today?

A R52 498
B R53 403
C R68 390
D R52 948

11. John Abbot bought a house 15-years ago for R600 000. He is hoping to sell the house within the next couple of months and wants to get a general idea of what it might be worth today. He reads an article which states that house prices have increased by approximately 5% per annum over the past 15-years. Based on this John should expect to receive approximately:

A R1 430 000
B R640 000
C R1 250 000
D R1 100 000

12. You need R2 000 000 in 20 years' time. You are willing to place a once-off amount of R200 000 into an investment. How much interest should you earn in order to reach your objective?

A 10%
B 11%
C 16%
D None of the above

13. Calculate the future value of R1 000 for 2 years at 15% p.a. quarterly compounded

A 1030
B 1342.47
C 1300
D 1000

14. You want to buy a car for R50 000. If you have R10 000 to invest today at 11%p.a., approximately how many years will you have to wait before you can afford to buy the car?

A 5 years
B 7 years
C 10 years
D 15 years

15. Which of the following is NOT a day count convention?

- A Actual/360
- B Actual/365
- C Actual/Actual
- D All of the above are day count conventions

16. A bank is offering interest at 7.5% p.a. If you deposit R500 in the bank today and the bank pays simple interest, how much interest will you have earned in 2 years?

- A R 75.00
- B R77.80
- C R37.50
- D R155.00

17. If you placed R200 into a savings account that paid a compound interest rate of 6% per year that was guaranteed, what amount would you have in the account at the end of the first year? Ignore transaction costs.

- A an amount less than R206
- B exactly R212
- C an amount more than R206
- D unable to determine as you need more information

18. If you want to accumulate R18 000 in 8 years' time, how much must you deposit in an account today if the account pays interest at 9%p.a.?

- A R9 638.58
- B R9 045.23
- C R9 033.59
- D R9 134.

19. What is the future value of R3 500, deposited for 12 years at 5%p.a. compounded semi-annually?

- A R6 285.50
- B R3 679.07
- C R5 709.94
- D R6 330.54

20. Given the following information: CPI is expected to be 6%, the nominal risk free rate is 8.7%, the market consensus on the stock market premium is 5%, calculate the required rate of return be?

- A 20.22%
- B 15.22%
- C 13.7%
- D 8.7%

21. Which of the following is/ are considered to be a financial market:

- A Equity
- B Commodities
- C Derivatives
- D All of the above

22. Which of the following are considered to be the functions of the secondary market?

- I Price discovery
- II Implementation of monetary policy
- III Issuing new securities
- IV Liquidity

- A I, III and IV
- B II and III
- C I, II and IV
- D all of the above are functions

23. These instruments are required to be rated by one or more rating agencies before any investor will consider them

- A NNCD's
- B Bonds
- C Preference shares
- D Central bank securities

24. Which of the following are characteristics of preferred stock?

- I May have no maturity date
- II May be redeemable at the option of the issuer
- III It gives the holder the right to dividends and capital over ordinary shareholders
- IV Dividends on preferred stock is fixed-rate

- A II and IV
- B I, II, and III
- C I and III
- D All of the above

25. In the forex market two types of transactions can take place, spot and forward. What does forward mean?

- A Pay at a date in the future other than spot
- B Pay now
- C Pay tomorrow
- D Pay at a future date, usually after one year

26. The value of a derivative security _____.

- A is unable to be calculated
- B is unrelated to the value of the related security
- C depends on the value of the related security
- D has been enhanced due to the recent misuse and negative publicity regarding these instruments

27. A call option allows the buyer to?

- A sell the underlying asset at a predetermined price on or before the expiry of a specified period
- B buy the underlying asset at a predetermined price on or before the expiry of a specified period
- C sell the option in the open market prior to expiry of a specified period
- D swap payment obligations with another counter-party

28. Real investments differ from financial assets in that they:

- I Can be used as an inflation hedge**
- II Have liquid markets**
- III Incur storage and insurance costs**
- IV Can have high transaction costs**

- A I, III, IV**
- B I, II**
- C II, III, IV**
- D I, IV**

29. Which of the following is NOT considered to be a hard commodity?

- A Alloys**
- B Oil**
- C Pigs**
- D Palladium**

30. Which of the following is considered to be an alternative investment instrument:

- A Hedge funds**
- B Property unit trusts**
- C Retirement funds**
- D Exchange traded funds**

31. What is the price of a 182-day Treasury Bill with a discount rate of 9.5% and an nominal value of R1000?

- A R951.97**
- B R952.63**
- C R952.76**
- D R953.41**

32. If you want to buy a 3 year zero coupon with a yield of 6.5%p.a. and a face value of R100, how much would you need to have available today?

- A R82.41**
- B R82.45**
- C R82.53**
- D R82.78**

34. If the current \$/R exchange rate is 0.0700413, how much would it cost you to buy \$1?

- A R7.00**
- B R14.27**
- C R70.04**
- D R142.77**

35. If the current R/£ exchange rate is R20.23 and the bank charges you R20.55, calculate the conversion spread.

- A 1.1369%**
- B 1.1192%**
- C 3.8557%**
- D 3.7956%**

36. The current R/€ exchange rate is R16.1430. If the current R/£ exchange rate is R20.23, what the £/€ exchange rate?

- A 0.7855
- B 0.7980
- C 1.2532
- D 1.2730

37. If the interest rate that you receive from an investment account is 6.5% per year and inflation is 4% a year. The amount of money in terms of purchasing power that you would have in the account after one year, would be?

- A exactly the same amount of money.
- B less money in one years' time in terms of purchasing power when taking inflation into account.
- C more money in one years' time in terms of purchasing power when taking inflation into account.
- D unable to determine.

38. The objective of an investment is to:

- A Guarantee your original investment.
- B Increase the amount of your original investment by earning income and generating capital gains.
- C Decrease the amount of your original investment by losing income and generating capital losses.
- D Speculate with your money.

39. All of the following statements regarding portfolio management are true *except*?

- A It is the ongoing decision-making in respect of the allocation of funds between different asset classes.
- B It is a balance between risk and return.
- C It is not based on in-depth market research.
- D Decisions involve choosing specific assets with asset classes.

40. The risk free rate is the rate that is earned on?

- A Corporate bonds
- B Government bonds
- C Commercial Paper
- D Zero coupon bonds

41. If the required rate of return on a 5 year investment is 7% and the risk free rate is 5%, then the investment's risk premium equals?

- A 2%
- B 5%
- C 7%
- D 12%

42. All of the following are macroeconomic influences on economic environment *except*?

- A Taxes
- B Interest Rates
- C Market Size
- D Currency Exchange Rates

43. The two broad sources of risk for investments are?

- A Market risk and unsystematic risk
- B Systematic risk and market risk
- C Security-specific risk and financial risk
- D Business risk and financial risk

44. You bought a share last year for R100 and you received dividends of R5. If you just sold the share for R115, what is your holding period return (HPR)?

- A 5%
- B 10%
- C 15%
- D 20%

45. If your HPR for a 5-year investment is 25%, what is your annualized HPR?

- A 4.50%
- B 4.75%
- C 5.00%
- D 5.25%

46. Which of the following is the most volatile of all the asset classes?

- A Shares
- B Property
- C Bonds
- D Money Market

Use the information in the following table to answer the next two questions.

The table shows the holding period returns on a share for 4 years.

Year	HPR
1	30%
2	11%
3	1%
4	-10%

47. The average return for the share is?

- A 8.0%
- B 10.5%
- C 15%
- D 25%

48. What is the historical standard deviation for the share?

- A 10%
- B 15%
- C 17%
- D 20%

49. Which of the following is not a component of security specific risk?

- A financial risk
- B business risk
- C inflation risk
- D liquidity risk

50. What is the official current unemployment rate in South Africa?

- A 7.4%
- B 19.2%
- C 24.5%
- D 32.9%

51. The beta of the market is?

- A -1.0
- B +1.0
- C +0.5
- D unable to determine

52. If a portfolio is made up of 60% equities which earn a return of 10% and 40% bonds which earn a return of 4%, what is the portfolio's return?

- A 7.0%
- B 7.6%
- C 6.6%
- D 5.8%

53. A portfolio has 50% invested in equities and 50% invested in bonds. If the standard deviation of equities is 19.3%, the standard deviation of bonds is 11.6% and the covariance between equities and bonds is 1.42%, what is the standard deviation of the portfolio?

- A 1.98%
- B 14.06%
- C 16.15%
- D 17.33%

54. Correlation refers to:

- A the causal relationship between two variables.
- B the association between two variables.
- C the proportion of variance that two variables share.
- D none of the above.

55. If the covariance between equities and bonds is 1.56%, the standard deviation of equities is 25.4% and the standard deviation of bonds is 11.6%, determine the correlation between equities and bonds.

- A 0.53
- B 0.63
- C 0.48
- D cannot be determined

56. To achieve maximum diversification in a two-asset portfolio, investors should choose assets with a correlation of:

- A -0.5
- B -1.0
- C 0
- D +1.0

57. Which financial statement displays the revenue and expenses of a company for a period of time?

- A Income statement
- B Balance sheet
- C Cash Flow statement
- D Statement of Shareholder's Equity

58. Economics is the study of:

- A production technology
- B consumption decisions
- C how society decided what, how and for whom to produce
- D the best way to run society

59. The accounting equation may *not* be expressed as?

- A $\text{Equity} = \text{Liabilities} - \text{Assets}$
- B $\text{Assets} = \text{Liabilities} + \text{Equity}$
- C $\text{Liabilities} = \text{Assets} - \text{Equities}$
- D $\text{Non-current assets} + \text{Current asset} = \text{Total liabilities} + \text{Equity}$

60. Who is the current Minister of Finance in South Africa?

- A Trevor Manuel
- B Pravin Gordhan
- C David van Rooyen
- D Nhlanhla Nene