CHARTERED INSTITUTE OF STOCKBROKERS

QUESTIONS

Examination Paper 2.1

**Financial Accounting and Financial Statement Analysis
Economics and Financial Markets
Quantitative Analysis and Statistics**

Professional Examination
March 2014

Level 2

Financial Accounting and Financial Statement Analysis (1 – 18)

1. Red Co acquired 80% of Blue Co's 40,000 ₦1 ordinary share capital on 1 January 2012 for a consideration of ₦3.50 cash per share. The fair value of the non-controlling interest was ₦50,000 and the fair value of the net assets acquired was ₦145,000.

    What should be recorded as goodwill on acquisition of Blue Co in the consolidated financial statements?
    A. ₦17,000
    B. ₦45,000
    C. ₦46,000
    D. ₦112,000

2. Consider the following working capital information for Full House Limited:

Year	2012	2013
	₦	₦
Accounts Receivable	0	100
Inventory	100	100
Accounts Payable	0	50

    What was the effect on free cash flow for the firm in 2013?
    A. Increase of ₦100
    B. Increase of ₦150
    C. Decrease of ₦50
    D. Decrease of ₦100

3. Company A and Company B have the same total assets, return on assets (ROA), and profit margin. However, Company A has a higher debt ratio and interest expense than Company B.

    Which of the following statements is most correct?
    A. Company A has a higher ROE (return on equity) than Company B.
    B. Company A has a higher total assets turnover than Company B.
    C. Company A has a higher operating income (EBIT) than Company B.
    D. (A) and (C) above.

4. On December 30, Devlin Limited sold goods to Jensen Limited for ₦10,000,000 under an arrangement in which (1) Jensen has an unlimited right of return and (2) Jensen's obligation to pay Devlin is contingent upon Jensen's reselling the goods. Past experience has shown that Jensen ordinarily resells 60% of goods and returns the other 40%.

    What amount should Devlin include in sales revenue for this transaction on its December 31 income statement?
    A. ₦0
    B. ₦10,000,000
    C. ₦6,000,000
    D. ₦4,000,000

5. The summarized Income statement of EPS Plc for the year ended 2013 is as follows:

	₦'000	₦'000
Profit before taxation		10,000
Taxation (including deferred adjustment)		4,000
		6,000
Preference dividend	500	
Ordinary dividend	1,000	1,500
		4,500

The number of ordinary shares in issue is 2 million. What is the basic earnings per share of EPS Plc?
A. 2.75K per share.
B. 4.75K per share.
C. 2.25K per share.
D. 4.00K per share.

6. A manufacturing company has lingering profit margin issues. As the financial accountant, you advised the management to adopt break even analysis to resolve the problem. The production manager provided the following data: Total fixed cost of ₦45 million, Selling price ₦12,000, Variable cost of ₦3,000 and target profit margin of ₦18 million.

At what quantity will the company achieved the set profit for the period?
A. 5,000 units.
B. 3,000 units.
C. 3,750 units.
D. 7,000 units.

7. Which of the following actions can a firm take to increase its current ratio?
A. Issue short-term debt and use the proceeds to buy back long-term debt with a maturity of more than one year.
B. Reduce the company's days sales outstanding to the industry average and use the resulting cash savings to purchase plant and equipment.
C. Use cash to purchase additional inventory.
D. None of the statements above is correct.

8. Zebra Limited spent ₦12,000,000 during the current year developing its new software package. Of this amount, ₦4,000,000 was spent before it was at the application development stage and the package was only to be used internally. The package was completed during the year and is expected to have a four year useful life. Zebra has a policy of taking a full-year's amortization in the first year. After the development stage, ₦50,000 was spent on training employees to use the program.

What amount should Zebra Limited report as an expense for the current year?
A. ₦1,600,000
B. ₦6,050,000
C. ₦2,000,000
D. ₦6,012,500

9. A high payout ratio indicates _____
A. A firm is investing heavily in plant and equipment.
B. A firm has high current obligations.
C. The firm is probably in the mature phase of its life cycle and does not have many growth opportunities available.
D. The firm is probably in Stage II of its life cycle.

Use the information below to answer questions 10 and 11:

The cash generating department of Flour Mills Plc has a carrying value of ₦1,400,000 which includes ₦300,000 of allocated goodwill. The recoverable amount of the department is determined to be ₦1,300,000, and the estimated fair value of its identifiable net assets is ₦1,200,000.

10. What is the impairment loss to be reported in the income statement?
    A. ₦400,000
    B. ₦100,000
    C. ₦800,000
    D. ₦600,000

11. What is the revised goodwill allocated to the cash generating department?
    A. ₦700,000
    B. ₦500,000
    C. ₦300,000
    D. ₦200,000

12. ABC Ltd had sales of ₦10 million, Operating Income of ₦3 million; After tax income of ₦1 million; assets of ₦8 million; Stockholders' equity of ₦5 million; and a total debt of ₦3 million.

    If we measure ABC's financial gearing we would most likely use which of the following ratios?
    A. Debt to equity (60%) and Debt to Sales (30%)
    B. Debt to equity (60%) and equity to assets (62.5%)
    C. Debt to equity (60%) and debt to assets (37.5%)
    D. Equity to assets (62.5%) and after tax income to debt (33.3%)

13. Reliance Limited Company has a new management team that has developed an operating plan to improve upon last year's ROE. The new plan would place the debt ratio at 55 percent which will result in interest charges of ₦7,000 per year. EBIT is projected to be ₦25,000 on sales of ₦270,000, and it expects to have a total assets turnover ratio of 3.0. The average tax rate will be 40 percent.

    What does Reliance Limited Company expect return on equity to be following the changes?
    A. 17.65%
    B. 26.67%
    C. 44.44%
    D. 51.25%

14. Purple Co acquired 70% of the voting share capital of Silver Co on 1 October 2012. The following extracts are from the individual income statements of the two companies for the year ended 30 September 2013:

	Purple Co	Silver Co
	₦	₦
Revenue	79,300	29,900
Cost of sales	(54,990)	(17,940)
Gross Profit	24,310	11,960

    Purple Co had made sales to Silver Co during the year of ₦5,000. Purple Co had originally purchased the goods at a cost of ₦4,000. Half of these items remained in inventory at the year end.

What should be the consolidated revenue for the year ended 30 September 2013?
A. ₦104,700
B. ₦95,230
C. ₦108,700
D. ₦104,200

15. If a company's share price falls, then its P/E ratio _____ and dividend yield _____
A. Decreases; No effect.
B. Decreases; Decreases.
C. Decreases; Increases.
D. Increases; Decreases.

16. _____ is a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. The title may or may not eventually be transferred.
A. Primary lease.
B. Operating lease.
C. Lease finance.
D. Transfer lease.

17. A _____ is a distinguishable component of an entity that is engaged in providing an individual product or service or a group of related products or services and that is subject to risk and returns that are different from those of other business segments.
A. Component accounting.
B. Departmental segment.
C. Business segment.
D. Geographical segment.

18. Which of the following is not a determinant of fair value in line with IFRS 13?
A. Quoted price in an active market.
B. Inputs other than the quoted price.
C. Unobserved inputs for the asset.
D. A proportion of the historical cost.

Economics and Financial Markets (19 – 31)

19. The marginal rate of substitution _____
A. May rise or fall, depending on the slope of the budget line.
B. Falls as you move downward along an indifference curve.
C. Rises as you move downward along an indifference curve.
D. Remains the same along a budget line.

20. If the CBN reduces the money supply, a floating exchange rate will help in reducing inflation because _____
A. As the money supply is decreased, the interest rate will increase, and the price of both Nigerian exports and Nigerian imports will rise.
B. As the money supply is decreased, the interest rate will increase, and the price of Nigerian exports will rise and the price of Nigerian imports will fall.
C. As the money supply is decreased, the interest rate will increase, and the price of Nigerian exports will fall and the price of Nigerian imports will rise.
D. As the money supply is decreased, the interest rate will increase, and the price of Nigerian exports and Nigerian imports will fall.

21. The private ownership of property resources and use of the market system to direct and coordinate economic activity is characteristic of _____
    A. Pure capitalism.
    B. The command economy.
    C. Market socialism.
    D. The traditional economy.

22. A rightward shift in the aggregate supply curve should result in _____
    A. Inflation and a higher unemployment rate.
    B. Inflation and a lower unemployment rate.
    C. Deflation and a higher unemployment rate.
    D. Deflation and a lower unemployment rate.

23. The reason for the law of demand can best be explained in terms of
    _____
    A. Supply.
    B. Complementary goods.
    C. The rationing function of prices.
    D. Diminishing marginal utility.

24. Cyclical unemployment is the _____
    A. Portion of unemployment that is due to changes in the structure of the economy that result in a significant loss of jobs in certain industries.
    B. Unemployment that results when people become discouraged about their chances of finding a job so they stop looking for work.
    C. Portion of unemployment that is due to seasonal factors.
    D. Unemployment that occurs during recessions and depressions.

25. You recently read an article about "Global Depression." The countries that experienced the depression would most likely have_____
    A. Experienced GDP growth, but at a rate below the long-term trend.
    B. Experienced higher employment levels than previously recorded.
    C. Suffered substantial losses of output and employment.
    D. Experienced high unemployment but an increase in output.

26. You are studying the different short-term growth rates across countries. Short-term growth involves _____
    A. An increase in aggregate supply.
    B. An increase in aggregate demand.
    C. A rightward shift of the production-possibilities curve.
    D. Expansionary supply-side policy.

27. The peak of a business cycle is typically accompanied by_____
    A. The highest unemployment rate over the cycle.
    B. The highest rate of increase in the price level over the cycle.
    C. The lowest output of goods and services over the cycle.
    D. All of the above.

28. External shocks include which of the following?
    A. Wars, natural disasters, trade disruptions.
    B. Tax policy, government spending, availability of money, and regulation.
    C. Population growth, spending behavior, invention, and innovation.
    D. Internal market forces, policy levers.

29. In the equation C = a + bY, which describes the aggregate consumption function, 'a' stands for _____
    A. The amount of consumption when income is zero.
    B. The marginal propensity to consume.
    C. The amount of consumption when income is maximum.
    D. The average consumption level.

30. An increase in endowments of capital will _____
    A. Shift labor supply to the right.
    B. Shift labor supply to the left.
    C. Shift labor demand to the right.
    D. Shift labor demand to the left.

31. "The drop in sales provided a boost to the credit market where many analysts believe a slowing economy would relieve upward pressure on interest rates". A slowing economy leads to lower interest rates because _____
    A. Lower income means a lower demand for money.
    B. The fed may lower rates to stimulate the economy.
    C. Inflationary pressures are lower, dropping inflation expectations.
    D. All of the above.

Quantitative Analysis and Statistics (32 – 40)

32. The index of prices in 2010 was computed to be 100.1 per cent while that of 2013 is 140.2 percent. If the salary of a worker in 2010 and 2013 is ₦300,000 and ₦400,000 respectively, what is the respective Real Income of the worker (to the nearest Naira)?
    A. ₦330,100, ₦560,000
    B. ₦299,700, ₦285,307
    C. ₦300,300, ₦440,000
    D. ₦290,000, ₦330,000

33. Let's suppose we are predicting score on a training posttest from number of years of education and the score on an aptitude test given before training. Here is the regression equation $Y = 25 + 0.5X_1 + 10X_2$, where X_1 = years of education and X_2 = aptitude test score.

    What is the predicted score for someone with 10 years of education and an aptitude test score of 5?
    A. 25
    B. 50
    C. 35
    D. 80

34. A sample is taken by randomly selecting a name from a list and thereafter selecting every 100th name. What is such a sample called?
    A. Quota sample.
    B. Systematic sample.
    C. Simple random sample.
    D. Stratified sample.

35. A sales representative calls on three unrelated customers. There is an 80 per cent chance of making a sale at any one of them. The probability of making exactly two sales is _____
   A. 0.128
   B. 0.64
   C. 1.92
   D. 0.384

36. If the rank correlation coefficient between variables X and Y is 0.85, which of the following comments is/are correct?
   A. Values of Y increase as values of X increase.
   B. Y decreases by 0.15 for every increase of 1 in X.
   C. Y increases by 0.85 for every increase of 1 in X.
   D. An increase in X causes corresponding increase in Y.

37. A project may result in the following profits with the probabilities stated below:

Profit	Probability
₦50,000	0.2
₦22,000	0.5
(₦10,000)	0.3

   What is the expected profit?
   A. ₦18,000
   B. ₦21,000
   C. ₦62,000
   D. ₦7,000

38. Given the following projects:

Project	P (₦)	Q(₦)	R (₦)	S (₦)	T(₦)
Investment	600	750	900	950	990
NPV	770	840	1,100	880	990

   What is the correct ranking of the projects using the profitability index?
   A. Q, R, P, S, T.
   B. R, T, S, Q, R.
   C. P, Q, R, T, S.
   D. P, R, Q, T, S.

39. You have just assessed a project, involving an immediate cash outflow followed by a series of cash inflows over the next seven years, by deducing the NPV and the IRR.
   You have now discovered that you have underestimated the discount rate.

   Correcting the underestimation will have which of the following effects relative to your original deductions?

	NPV	IRR
A.	Reduce	No change.
B.	No change	No change.
C.	Increase	Reduce.
D.	Increase	Increase.

40. Given two matrices:

$$X = \begin{bmatrix} 2 & -7 \\ 1 & -6 \end{bmatrix} \quad \text{and} \quad y = \begin{bmatrix} 3 & 4 \\ -1 & 5 \end{bmatrix}$$

What is the determinant of X+ Y?
A. -8
B. 5
C. -5
D. 8

Total = 40 marks

SECTION B: SHORT ANSWER QUESTIONS

Question 2 - Financial Accounting and Financial Statement Analysis

Briefly explain the impact of gearing on a company's return on equity (ROE).

(3 marks)

Question 3 - Economics and Financial Markets

What do you understand by "Inflation Illusion"?   *(3 marks)*

Question 4 - Quantitative Analysis and Statistics

You have been given an offer by an Insurance Company to purchase an annuity product which guarantees you the receipt of ₦500,000 annually forever.

If your required rate of return is 10% p.a., what is the maximum amount you would pay for this product, and why?   *(4 marks)*

Question 5 - Financial Accounting and Financial Statement Analysis

5(a) You have the following information about Company A for the year 2013:

Sales	5,000,000
Purchases	2,800,000
Depreciation	200,000
Other expenses	600,000
Opening inventory	400,000
Closing inventory	350,000
Income tax rate	30%

All sales and expenses were paid during year 2013. What are the company's PAT and Cash flow from operating activities?

(*5 marks*)

5(b) You later got information about the following additional transactions/issues that took place during the year 2013 in company A.

I.   Some items of non-current asset were impaired to the tune of ₦200,000 during the year, but this has not been reflected in the accounts.

II.   Closing inventory should have been ₦700,000 instead of ₦350,000 recorded in the books.

III. Company A has a pending litigation with one of its customers. The company's legal advisers have advised that it is possible that the company will be liable to pay the sum of ₦300, 000 to the customer.

IV. Bad debt of ₦500,000 previously written off was recovered.

V.   A 1-for-2 right issue was made during the year to existing shareholders, generation additional cash flow of ₦1,000,000 to the company.

Required:

Complete the table below to reflect the impact of these transactions and compute revised PAT and Cash flow from operating activities. Indicate "0" where there is no impact.

	PAT (₦)	CASH FLOW FROM OPERATING ACTIVITIES (₦)
ORIGINAL FIGURE	_____	_____
(from 5(a) above)		
TRANSACTION		
I	_____	_____
II	_____	_____
III	_____	_____
IV	_____	_____
V	_____	_____
REVISED FIGURE	_____	_____

(5 marks)

5(c) A statistical survey showed the following comparison of financial ratios for the Foods & Beverages and Building Materials Sectors of the NSE:

	Foods & Beverages	Building Materials
Price earnings ratio	9.00	7.00
Dividend yield	4.50%	6.50%
Stock turnover	0.8 months	3.0 months
Pre-tax return on capital employed	23.00%	16.00%

5(c1) As a financial analyst of an asset management company, briefly explain the meaning of the above ratios.   *(4 marks)*

5(c2) Give your views on the possible reasons for the variations in each of the ratios between the two industries.   *(6 marks)*

Question 6 - **Economics and Financial Markets**

Below is an extract from a recent newspaper publication on IMF projections on the Nigerian economy in 2014.

"The International Monetary Fund, IMF, has predicted a 7.3 percent economic growth for Nigeria in 2014, up from 6.4 percent in 2013, with inflation to continue on a downward trend. IMF said the accelerated economic growth, which reflects a more optimistic outlook than the 6.75 growth projected by Minister of Finance and Coordinating Minister of the Economy, Dr. Ngozi Okonjo-Iweala, would be driven by sectors outside its dominant energy industry. The forecast puts inflation ending the year at 7 percent, down from 7.9 percent at the end of 2013, continuing a two-year downward trend supported by tight monetary policy".

It is good news that while some other economies are experiencing economic recession and/or economic depression, the Nigerian economy is projected to experience higher growth rates in 2014.

6(a) Distinguish clearly between economic recession and economic depression.

(5 marks)

(b) Is it true that inflation and economic recession are mutually exclusive?
Briefly discuss.   (*6 marks*)

6(c) Using the IS-LM model, illustrate with appropriate diagram(s) how the higher growth projection of 7.3% will be achieved, assuming increased government spending in 2014. What will be the likely impact?   *(7 marks)*

Question 7 - Quantitative Analysis and Statistics

7(a) Given a probability of 0.4 that a man has trained as an accountant, and a probability of 0.5 that a man has trained as a stockbroker, and a probability of 0.3 that a man has trained neither as an accountant nor as a stockbroker, what is the probability that he is both an accountant and a stockbroker?

(*4 marks*)

(*Hint: Use Venn diagram*)

7(b) The research section of XBM Ltd has estimated its operating conditions as follows:

Revenue (₦R) = $920q - 8q^2$

Cost (₦C) = $q^2 + 20q + 60$

Where q is the number of units produced and sold.

If the firm wishes to maximize profit, use the concept of marginal revenue and marginal cost to determine:

7(b1) The quantity to be sold. (*4 marks*)

7(b2) The selling price. (*2 marks*)

7(b3) The maximum profit. (*2 marks*)