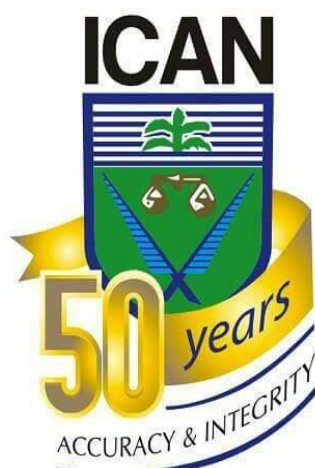


THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA



PATHFINDER

NOVEMBER 2015 FOUNDATION EXAMINATION

Question Papers

Suggested Solutions

Plus

Marking Guide

Examiners' Reports

TABLE OF CONTENTS

SUBJECT

QUANTITATIVE TECHNIQUES IN BUSINESS (QTB)	2
BUSSINESS AND FINANCE (BF)	39
FINANCIAL ACCOUNTING (FA)	63
MANAGEMENT INFORMATION (MI)	93
BUSINESS LAW (BL)	120

FOUNDATION LEVEL - NOVEMBER 2015
QUANTITATIVE TECHNIQUES IN BUSINESS

Time Allowed: 3 hours

SECTION A: MULTIPLE-CHOICE QUESTIONS (20 Marks)

ANSWER ALL QUESTIONS IN THIS SECTION

Write **ONLY** the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/statements:

1. The middle term in a set of ordered observations is referred to as
 - A. Geometric mean
 - B. Median
 - C. Mean
 - D. Mode
 - E. Harmonic mean
2. Which **ONE** of the following diagrams does **NOT** depict the information in a frequency distribution for numerical data?
 - A. Histogram
 - B. Histogram
 - C. Bar Chart
 - D. Frequency Polygon
 - E. Pie Chart
3. What is the standard deviation of the JAC Airlines' revenue profile for four years if the revenues for those years are ₦20m, ₦25m, ₦18m and ₦24m?
 - A. 2.86
 - B. 2.87
 - C. 2.88
 - D. 2.89
 - E. 2.99
4. Which of the following lists of data is an array?
 - A. 7, 14, 21, 26, 22, 30
 - B. 30, 22, 26, 21, 14, 7
 - C. 7, 14, 21, 30, 22, 26
 - D. 7, 14, 21, 22, 26, 30
 - E. 30, 22, 21, 14, 26, 7
5. In a company having 100 employees, 80 each earns ₦800.00 per hour and the remaining 20 each earns ₦1000.00 per hour. What is the mean earnings per hour?

- A. ~~₦~~940 per hour
 - B. ~~₦~~840 per hour
 - C. ~~₦~~740 per hour
 - D. ~~₦~~640 per hour
 - E. ~~₦~~540 per hour
6. The simplest measure of dispersion is the
- A. Mean deviation
 - B. Standard deviation
 - C. Range
 - D. Co-efficient of variation
 - E. Mean Absolute Deviation (MAD)
7. If an asset can be replaced at the same cost and there is no time value of money, then the problem of obtaining the optimal replacement interval involves the following **EXCEPT**
- A. Finding the cumulative operating/maintenance cost
 - B. Finding the total depreciation
 - C. Adding (A) and (B) above to get total cost
 - D. Finding the year at which marginal cost is minimized
 - E. Finding the year at which average cost is minimum
8. A simulation method that uses random numbers to predict system behaviour is called
- A. Markov chain simulation
 - B. Box Jenkins simulation
 - C. Random variable simulation
 - D. Stochastic simulation
 - E. Monte Carlo simulation
9. Probability is important in business because most decision-making in business involves
- A. Mutually exclusive situations
 - B. Most-likely situations
 - C. Equally-likely situations
 - D. Uncertainty situations
 - E. Certainty situations
10. Random experiments in probability analysis are experiments whose outcomes
- A. Cannot be predicted
 - B. Cannot be predetermined
 - C. Cannot be easily determined
 - D. Cannot be biased
 - E. Can be determined from records

11. If the z-score for a normal distribution is 1.89, then the area under the normal curve to the right of z is
- 0.02
 - 0.03
 - 0.04
 - 0.47
 - 0.97
12. The measure that explains how well the regression line fits a set of data on daily sales of a product is known as co-efficient of
- Rank Correlation
 - Product-Moment Correlation
 - Determination
 - Variation
 - Linear Regression

13. The table below shows the quantity of Newspapers sold daily in a week by a vendor:

Days of the week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Quantity sold	550	450	500	370	420	620	490

The 3-day moving average corresponding to Friday is

- 400
 - 430
 - 470
 - 550
 - 570
14. The scatter plot depicting the association that exists between price of an item and quantity supplied is such that all the points fall on a straight line and their movement is in downward trend. This type of correlation exhibited in the graph is known as
- Perfect positive
 - Positive
 - Perfect negative
 - Negative
 - Zero
15. An Accountant plans to give his wife a precious gift on her 50th birthday in 1½ years' time. He intends to start with a deposit of ₦5 and doubles the amount every month throughout this period. Assuming no interest is paid on this account, determine the accumulated amount in this account at the end of this period
- ₦1,510,715

- B. ~~₦~~1,410,715
 C. ~~₦~~1,310,715
 D. ~~₦~~1,210,715
 E. ~~₦~~1,110,715
16. A woman made weekly donations according to an Arithmetic Progression (AP). How many donations did she make if her first donation was ~~₦~~5,000, her second donation was ~~₦~~6,000 and her last donation was ~~₦~~49,000?
- A. 44
 B. 45
 C. 46
 D. 47
 E. 48
17. Three sisters: Mary, Mabel and Vera shared the sum of ~~₦~~900,000 as proceeds from their father's real estate in the ratio 7:8:9 respectively. How much did Mabel get?
- A. ~~₦~~262,500.00
 B. ~~₦~~300,000.00
 C. ~~₦~~337,500.00
 D. ~~₦~~352,173.91
 E. ~~₦~~373,043.47
18. The term used to describe the process of working backwards in time to find the present value from future value of investment is known as
- A. Discount
 B. Discounting
 C. Discount rate
 D. Annuity
 E. Amortisation
19. The borrower who pays off a ahead of time pays higher effective rate
- A. Discounted loan
 B. Standing loan
 C. Amortised loan
 D. Ordinary loan
 E. Bank loan
20. A stationary point for the function $f(x)$ is a point at which
- A. $f'(x) < 0$
 B. $f'(x) = 0$
 C. $f'(x) > 0$
 D. $f''(x) = 0$
 E. $f''(x) \neq 0$

SECTION B: ANSWER ANY FOUR OUT OF SIX QUESTIONS IN THIS SECTION (80 Marks)

QUESTION 1

A company buys an item having a useful life of 10 years for ₦1,000,000. If the company depreciates the item by the reducing balance method,

- a. Determine the depreciation for the first year (3 Marks)
 - b. Estimate the depreciation for the second and third years (6 Marks)
 - c. What is the salvage value of the asset? (11 Marks)
- (Total 20 Marks)**

QUESTION 2

- a. Given that the demand function of a business is $P(x) = 3x^2 - 4x + 13$, calculate the price elasticity of demand when $x = 5$ and interpret your result. (6 Marks)
 - b. MANDILAS Ventures has established its total cost function to be $TC(q) = 5q^4 - 195q^3 - 1800q^2$. Determine the level of output that will give minimum average cost. (8 Marks)
 - c. Given that the Total Revenue (TR) function is $TR = 24x - 3x^2$ and the Total Cost (TC) function is $TC = 100 + 4x + 2x^2$, at what level of output is profit maximised? (6 Marks)
- (Total 20 Marks)**

QUESTION 3

The table below shows the hypothetical incomes of some families in a locality:

Income (R)	Percent
1000 – 1999	6.2
2000 – 2999	5.9
3000 – 3999	7.2
4000 – 4999	8.8
5000 – 5999	7.8
6000 – 6999	15.0
7000 – 7999	17.6
8000 – 8999	12.8
9000 – 9999	8.5
10,000 – 10,999	10.2

Required:

- Determine the semi-interquartile range for the incomes of the families
(10 Marks)
 - Determine the standard deviation for the incomes of the families
(10 Marks)
- (Total 20 Marks)**

QUESTION 4

A production company has three production lines L_1 , L_2 and L_3 .

The table below shows the percentage of items produced and percentage of defective items from each line:

	L_1	L_2	L_3
Percentage produced	35	25	40
Percentage defective	4	2	3

You are required to

- Draw the tree diagram for the production company
(7 Marks)
 - Use your tree diagram to obtain the probability that
 - The company produces defective items
(8 Marks)
 - If there is a defective item from the company, it is either from L_1 or L_3
(5 Marks)
- (Total 20 Marks)**

QUESTION 5

- a. A group of 24 final year students participated in an Economic Theory Test and their scores were recorded based on assessment as follows:

12	14	18	7	11	15
8	15	10	14	19	9
14	6	13	14	12	16
10	9	12	15	8	17

Required:

Determine the

- Mean,
- Median, and
- Mode of this distribution

(10 Marks)

- b. An auditing firm is carrying out analytical review of the financial transactions of its client, XYZ manufacturing company limited. In order to ascertain the relationship that exists between the company's annual expenditure and annual income, the following information was extracted from the company's record for eight different years:

Years	1	2	3	4	5	6	7	8
Expenditure (x) (in millions of naira)	30	25	40	35	50	30	55	20
Income (y) (in millions of naira)	42	45	55	50	60	40	70	35

You are required to

- Calculate the Pearson's product-moment correlation coefficient between x and y (9 Marks)
- Comment on the result in (i) (1 Mark)

(Total 20 Marks)

QUESTION 6

Assume that the management of Community Bank Limited wants to invest up to ₦100,000 in inventory considered to be either conservative or speculative. The company's board approved investment policy is that the investment in conservative inventory should be at most ₦80,000 while the investment in the speculative inventory should be at least ₦12,000. Assume further that ₦1.6 return is expected on each naira invested in the conservative inventory, ₦2.0 return is expected on each investment in the speculative inventory, and that monetary policy regulations require that investment in the speculative inventory should be at most one-third of the investment in the conservative inventory.

Required:

- a. State the type of Operations Research problem described above?
(2 Marks)
 - b. Formulate mathematically, the
 - i. Objective function (4 Marks)
 - ii. Constraint inequalities (8 Marks)
 - iii. Investment problem (6 Marks)
- (Total 20 Marks)**

Formulae

PROBABILITY

$$A \cup B = A \text{ or } B$$

$$A \cap B = A \text{ and } B \text{ (overlap).}$$

$$P(B|A) = \text{probability of } B, \text{ given } A$$

Rules of Addition

$$\text{If } A \text{ and } B \text{ are mutually exclusive: } P(A \cup B) = P(A) + P(B)$$

$$\text{If } A \text{ and } B \text{ are not mutually exclusive: } P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

Rules for Multiplication

$$\text{If } A \text{ and } B \text{ are independent: } P(A \cap B) = P(A) * P(B)$$

$$\text{If } A \text{ and } B \text{ are not independent: } P(A \cap B) = P(A) * P(B|A)$$

$$E(X) = \sum (\text{probability} * \text{payoff})$$

Quadratic Equations

If $ax^2 + bx + c = 0$ is the general quadratic equation, the two solutions (roots) are given by:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

DESCRIPTIVE STATISTICS

Arithmetic Mean

$$\bar{x} = \frac{\sum x}{n} \quad (\text{discrete distribution}) \quad \bar{x} = \frac{\sum fx}{\sum f} \quad (\text{frequency distribution})$$

Standard Deviation

$$SD = \sqrt{\frac{\sum (x - \bar{x})^2}{n}} \quad (\text{discrete distribution}) \quad SD = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2} \quad (\text{frequency distribution})$$

$$\text{Lower Quartile} \quad - \quad Q_1 = L_{q_1} + \left(\frac{\frac{N}{4} - Cf_{bq_1}}{fq_1} \right) cq_1$$

$$\text{Upper Quartile} \quad - \quad Q_3 = L_{q_3} + \left(\frac{\frac{3N}{4} - Cf_{bq_3}}{fq_3} \right) cq_3$$

INDEX NUMBERS

$$\text{Price relative} = 100 * P_1/P_0$$

$$\text{Quantity relative} = 100 * Q_1/Q_0$$

$$\text{Price:} \quad \frac{\sum w * \left(\frac{P_1}{P_0} \right)}{\sum w} \times 100$$

$$\text{Quantity:} \quad \frac{\sum w * \left(\frac{Q_1}{Q_0} \right)}{\sum w} \times 100$$

TIME SERIES:

$$\text{Additive Model} \quad \text{Series} = \text{Trend} + \text{Seasonal} + \text{Random}$$

$$\text{Multiplicative Model} \quad \text{Series} = \text{Trend} * \text{Seasonal} * \text{Random}$$

LINEAR REGRESSION AND CORRELATION

The linear regression equation of Y on X is given by:

$$Y = a + bX \text{ or } Y - \bar{Y} = b[X - \bar{X}]$$

Where

$$b = \frac{\text{Covariance } (XY)}{\text{Variance } (X)} = \frac{n \sum XY - (\sum X)(\sum Y)}{n \sum X^2 - (\sum X)^2}$$

and

$$a = \bar{Y} - b\bar{X}$$

or solve

$$\begin{aligned}\sum Y &= na + b \sum X \\ \sum XY &= a \sum X + b \sum X^2\end{aligned}$$

Coefficient of Correlation

$$r = \frac{\text{Covariance } (XY)}{\sqrt{\text{Var}(X) \cdot \text{Var}(Y)}} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\left\{n \sum X^2 - (\sum X)^2\right\} \left\{n \sum Y^2 - (\sum Y)^2\right\}}}$$

$$R(\text{rank}) = 1 - \frac{6 \sum d^2}{n(n^2 - 1)}$$

FINANCIAL MATHEMATICS

Compound Interest (Values and Sums)

Future Value S, of a sum of X, invested for n periods, compounded at $r\%$ interest

$$S = X(1 + r)^n$$

Annuity

Present value of an annuity of ₦1 per annum receivable or payable for n years, commencing in one year, discounted at $r\%$ per annum

$$PV = \frac{1}{r} \left[1 - \frac{1}{(1 + r)^n} \right]$$

Perpetuity

Present value of ₦1 per annum, payable or receivable in perpetuity, commencing in one year, discounted at $r\%$ per annum.

$$PV = \frac{1}{r}$$

Annuity Table

Present value of an annuity of 1 i.e. $1 - (1 + r)^{-n}$

r

Where r = discount rate

n = number of periods

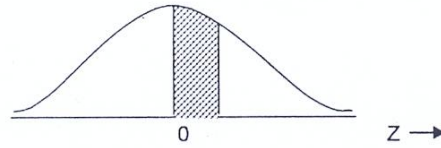
Discount rate (r)

Period

(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	2
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	4
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	5
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	6
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	7
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	8
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	9
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	10
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	11
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	12
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103	13
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	14
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	2
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	3
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	4
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	5
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	6
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	7
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	8
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	9
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	10
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327	11
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	12
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	13
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	14
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	15

NORMAL DISTRIBUTION

This table gives the area under the normal curve between the mean and a point Z standard deviations above the mean. The corresponding area for deviations below the mean can be found by symmetry.



$Z = \frac{(x - \mu)}{\sigma}$	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	.0000	.0040	.0080	.0120	.0159	.0199	.0239	.0279	.0319	.0359
0.1	.0398	.0438	.0478	.0517	.0557	.0596	.0636	.0675	.0714	.0753
0.2	.0793	.0832	.0871	.0910	.0948	.0987	.1026	.1064	.1103	.1141
0.3	.1179	.1217	.1255	.1293	.1331	.1368	.1406	.1443	.1481	.1517
0.4	.1554	.1591	.1628	.1664	.1700	.1736	.1772	.1808	.1844	.1879
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	.2190	.2224
0.6	.2257	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2518	.2549
0.7	.2580	.2611	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852
0.8	.2881	.2910	.2939	.2967	.2995	.3023	.3051	.3078	.3106	.3133
0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830
1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015
1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177
1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4430	.4441
1.6	.4452	.4463	.4474	.4485	.4495	.4505	.4515	.4525	.4535	.4545
1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633
1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706
1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4762	.4767
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857
2.2	.4861	.4865	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4980	.4980	.4981
2.9	.4981	.4982	.4983	.4983	.4984	.4984	.4985	.4985	.4986	.4986
3.0	.49865	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990
3.1	.49903	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993
3.2	.49931	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995
3.3	.49952	.4995	.4995	.4996	.4996	.4996	.4996	.4996	.4996	.4997
3.4	.49966	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4998
3.5	.49977									

SOLUTIONS

MCQ SOLUTIONS

SECTION A

1. B
2. A
3. A
4. D
5. B
6. C
7. D
8. E
9. D
10. B
11. B
12. C
13. C
14. C
15. C
16. B
17. B
18. B
19. A
20. B

WORKINGS

3.

X	$X - \bar{X}$	$(X - \bar{X})^2$
20	-1.75	3.0625
25	3.25	10.5625
18	-3.75	14.0625
24	2.25	5.0625
87		32.75

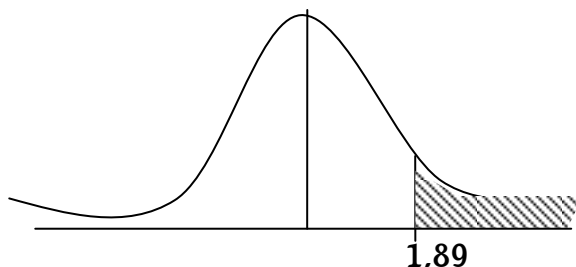
$$\bar{X} = \frac{\sum X}{n} = \frac{87}{4} = 21.75$$

$$\begin{aligned} \text{SD} &= \sqrt{\frac{\sum (X - \bar{X})^2}{n}} \\ &= \sqrt{\frac{32.75}{4}} = \sqrt{8.1875} \\ &= 2.8614 \end{aligned}$$

4. The list of data: 7, 14, 21, 22, 26, 30 shows a consistent pattern.

$$\begin{aligned} 5. \quad \text{Mean} &= \frac{80(800) + 20(1000)}{80 + 20} \\ &= \frac{64000 + 20000}{100} = \text{N}840 \text{ per hour} \end{aligned}$$

11.



The required area (shaded) is
 $0.5 - 0.4706$ (obtained from
the tables = 0.0294
= 0.03

13.

Days of the week	Qty Sold	3-day Moving Totals	3-day Moving Average
Monday	550		
Tuesday	450	1500	500
Wednesday	500	1320	440
Thursday	370	1290	430
Friday	420	1410	470 *
Saturday	620	1530	510
Sunday	490		

∴ the 3-day moving average corresponding to Friday is 470

$$\begin{aligned}
 15. \quad S_n &= a \left(\frac{r^n - 1}{r - 1} \right) \\
 a &= 1^{\text{st}} \text{ term} = 5 \\
 r &= \text{common ratio} = \frac{10}{5} = \frac{20}{10} = \frac{40}{20} = 2 \\
 &= 5 \left(\frac{2^{18} - 1}{2 - 1} \right) \\
 &= 1,310,715
 \end{aligned}$$

$$\begin{aligned}
 16. \quad a &= 5000; \quad d = 6000 - 5000 = 1000 \\
 n^{\text{th}} \text{ term} &= a + (n - 1)d \\
 49000 &= 5000 + (n - 1) 1000 \\
 \frac{44000}{1000} &= n - 1 \\
 44 &= n - 1 \quad \Rightarrow \quad n = 45
 \end{aligned}$$

$$\begin{aligned}
 17. \quad \text{Mabel:} \quad &\left(\frac{8}{7+8+9} \right) 900,000 \\
 &= \frac{8}{24} (900,000) \\
 &= \text{N}300,000
 \end{aligned}$$

EXAMINER'S REPORT

Questions on MCQ covered the syllabus fairly. Generally, candidates' performance was fair with majority of them scoring between 8 and 12 out of the allocated 20 marks

SECTION B

SOLUTION 1

$$\begin{aligned}n &= 10 \\r &= \frac{1}{10} = 10\% \\&\text{(reducing balance method)}\end{aligned}$$

(a) 1st Year $- 1,000,000 \times \frac{1}{10} = 100,000$

(b) 2nd Year

1,000,000
<u>100,000</u>
<u>900,000</u>

$$- 900,000 \times \frac{1}{10} = 90,000$$

3rd Year

900,000
<u>90,000</u>
<u>810,000</u>

$$- 810,000 \times \frac{1}{10} = 81,000$$

(c)

Year	Old value (₦)	Discount (10%) (₦)	New value (₦)
1	1,000,000.00	100,000.00	900,000.00
2	900,000.00	90,000.00	810,000.00
3	810,000.00	81,000.00	729,000.00
4	729,000.00	72,900.00	656,100.00
5	656,100.00	65,610.00	590,490.00
6	590,490.00	59,049.00	531,441.00
7	531,441.00	53,144.10	478,296.90
8	478,296.90	47,829.69	430,467.21
9	430,467.21	43,046.72	387,420.49
10	387,420.49	38,742.05	348,678.44

The salvage value of the asset is = ~~₦~~348,678.44

ALITER TO SOLUTION 1

$$\text{Let } M = \text{Original cost} = \text{₦1,000,000}$$

$$P = \text{Years of useful life} = 10$$

$$D_i = \text{Depreciation for } i^{\text{th}} \text{ year}$$

$$\begin{aligned} \text{(a)} \quad D_1 &= \frac{M}{P} \\ &= \frac{1000000}{10} \\ &= \text{₦100,000} \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad D_2 &= \frac{M}{P} \left(\frac{p-1}{p} \right) \\ &= 100,000 \left(\frac{10-1}{10} \right) \\ &= 100,000 \left(\frac{9}{10} \right) \\ &= \text{₦90,000} \end{aligned}$$

$$\begin{aligned} D_3 &= \frac{M}{P} \left(\frac{p-1}{p} \right)^2 \\ &= \frac{(1,000,000)}{10} \left(\frac{10-1}{10} \right)^2 \\ &= 100,000 \left(\frac{9}{10} \right)^2 \\ &= \text{₦81,000} \end{aligned}$$

(c)

$$\begin{array}{ccc} D_1 & D_2 & D_3 \\ 100,000 & 90,000 & 81,000 \end{array}$$

$$\begin{array}{ccc} \frac{90,000}{100,000} & = & \frac{81,000}{90,000} \\ r & = & 0.9 = \text{Common ratio} \end{array}$$

∴ we have a geometric progression with

$$\begin{array}{l} a = 100,000; \\ \text{common ratio } (r) = 0.9 \\ \text{and } n = 10 \end{array}$$

Total depreciation for the n^{th} year is given by

$$S_n = a \frac{(1-r^n)}{1-r}$$

The total depreciation for the 10th year is given as

$$\begin{aligned} S_{10} &= 100,000 \left[\frac{1-(0.9)^{10}}{1-0.9} \right] \\ &= \text{N}651,321.56 \end{aligned}$$

∴ The salvage (scrap) value is the difference between M and S_{10}

$$\begin{aligned} \text{i.e. Salvage value} &= \text{N}1,000,000 - \text{N}651,321.56 \\ &= \text{N}348,678.44 \end{aligned}$$

ALITER TO SOLUTION 1(c)

Using the formula $1 - \sqrt[n]{\frac{S}{C}} = r$

Where: S = salvage value
 C = cost of asset
 n = useful year
 r = depreciation rate

$$\begin{aligned} 1 - \sqrt[10]{\frac{S}{1,000,000}} &= 0.1 \\ \sqrt[10]{\frac{S}{1,000,000}} &= 0.9 \\ \frac{S}{1,000,000} &= (0.9)^{10} \\ S &= (0.9)^{10}(1,000,000) \\ S &= 348,678.44 \end{aligned}$$

MARKING GUIDE

			Marks
(a)	- Correct depreciation rate	1	3
	- Multiplication of depreciation rate by initial cost of asset	1	
	- Correct answer	1	
(b)	- Subtracting to get second year of asset	1	6
	- Correct answer	1	
	- Correct second year depreciation	1	
	- Subtracting to get third year cost of asset	1	
	- Correct answer	1	
	- Correct third year depreciation	1	

(c)	- Correct table of depreciation with ten rows and columns for year, initial cost of asset, depreciation value and new cost of assets (1 mark each for the ten rows)	10	
	- Correct Salvage Value	1	
			11
			<hr/> 20

ALITER TO SOLUTION 1

a.	- Correct Formula	1	
	- Correct substitution	1	
	- Correct answer	1	
			3
b.	- Correct Formula	1	
	- Correct substitution	1	
	- Correct answer	1	
			3
	- Correct Formula	1	
	- Correct substitution	1	
	- Correct answer	1	
			3
c.	Dividing D_2 by D_1 or D_3 by D_2 to get the common ratio	1	
	- Correct answer	1	
	- Identification of GP	1	
	- Correct formula for S_n	2	
	- Correct substitution in the Formula	2	
	- Salvage Value expression	1	
	- Correct answer	1	
			11
			<hr/> 20

ALITER TO SOLUTION 1(c)

- Correct Formula	2	
- Correct explanation of variables in the formula	2	
- Correct substitution	2	
- Simplification	3	
- Correct answer	2	
		11

EXAMINER'S REPORT

The question tests candidates' knowledge of depreciation and salvage value of an asset. About 80% of the candidates attempted the question and most of them had a fair understanding of the question. Some of them could not obtain the salvage value of the asset. About 50% of those who attempted the question scored above average. Candidates are advised to cover all aspects of the syllabus in order to improve on their performance in future.

SOLUTION 2

(a) If x = demand and P = price.

The price elasticity of demand is given by

$$e_{px} = \frac{dx}{dp} \cdot \frac{p}{x} \dots\dots\dots (i)$$

$$P(x) = 3x^2 - 4x + 13 \dots\dots\dots (ii)$$

$$\Rightarrow \frac{dp}{dx} = 6x - 4 \dots\dots\dots (iii)$$

Substitute (ii) and (iii) into (i) to get

$$\begin{aligned} e_{px} &= \frac{dx}{dp} \cdot \frac{p}{x} \\ &= \frac{1}{\frac{dp}{dx}} \cdot \frac{p}{x} \\ &= \frac{1}{6x - 4} \cdot \frac{3x^2 - 4x + 13}{x} \\ &= \frac{3x^2 - 4x + 13}{x(6x - 4)} \end{aligned}$$

$$\text{When } x = 5$$

$$\begin{aligned} \text{Then: } e_{px} &= \frac{3(5)^2 - 4(5) + 13}{5[6(5) - 4]} \\ &= \frac{68}{130} \\ &= 0.52 < 1 \end{aligned}$$

Hence, the demand is inelastic

i.e. the degree of responsiveness of customers compared to the change in price is minimal.

$$(b) \quad TC(q) = 5q^4 - 195q^3 - 1800q^2$$

$$\begin{aligned} \text{Average Cost (AC)} &= \frac{TC(q)}{q} \\ &= \frac{5q^4 - 195q^3 - 1800q^2}{q} \\ &= 5q^3 - 195q^2 - 1800q \end{aligned}$$

To obtain the required output level that is associated with the minimum AC requires that we differentiate the AC function with respect to q , set it to zero and solve for q thus:

$$\begin{aligned}\frac{dAC}{dq} &= 15q^2 - 390q - 1800 = 0 \\ \Rightarrow q^2 - 26q - 120 &= 0 \\ (q-30)(q+4) &= 0 \\ q &= 30 \text{ or } -4\end{aligned}$$

since q cannot be negative then $q = 30$

$$\frac{d^2AC}{dq^2} = 30q - 390$$

$$\text{at } q = 30; \quad \frac{d^2AC}{dq^2} = 900 - 390 = 510 > 0$$

hence, $q = 30$ is the required quantity level that gives minimum average cost

$$\begin{aligned}TR &= 24x - 3x^2 \\ MR &= \frac{dTR}{dx} = 24 - 6x \\ TC &= 100 + 4x + 2x^2 \\ \therefore MC &= \frac{dTC}{dx} = 4 + 4x\end{aligned}$$

Profit is maximized where $MR = MC$

$$\begin{aligned}\text{i.e. } 24 - 6x &= 4 + 4x \\ 10x &= 20 \\ x &= 2\end{aligned}$$

ALITER TO SOLUTION 2(c)

$$\begin{aligned}TR &= 24x - 3x^2 \\ TC &= 100 + 4x + 2x^2 \\ \text{Total Profit (TP)} &= TR - TC \\ &= 24x - 3x^2 - (100 + 4x + 2x^2) \\ &= 20x - 5x^2 - 100 \\ \frac{dTP}{dx} &= 20 - 10x \\ \frac{dTP}{dx} &= 0 \text{ (at stationary point or turning point)} \\ \text{i.e. } 20 - 10x &= 0 \\ x &= 2 \\ \frac{d^2TP}{dx^2} &= -10 < 0 \text{ (for maximum point)}\end{aligned}$$

Hence, profit is maximized when $x = 2$

MARKING GUIDE

			Marks
a.	- Correct Formula	1	6
	- Correct Differentiation of $P(x)$	1	
	- Correct substitution in the formula	1	
	- Substitution of $x = 5$	1	
	- Correct answer	1	
	- Correct Interpretation	1	
b.	- Correct expression of AC	1	8
	- Correct answer	1	
	- Differentiation of AC	1	
	- Equating to zero and solving	1	
	- Correct answer	1	
	- Final answer for q	1	
	- Confirmation of being minimum	2	6
c.	- Finding MR	1	
	- Finding MC	1	
	- Equating MR to MC	1	
	- Correct substitution	1	
	- Solving of equation	1	
	- Final answer	1	
			6
			<u>20</u>

ALITER TO SOLUTION 2(c)

c.	- Correct substitution for TR and TC in TP	1
	- Correct expression for TP	1
	- Correct Differentiation of TP	1
	- Equating $\frac{dTP}{dx} = 0$ (stationary point)	1
	- Correct second differentiation with indication of maximum point	1
	- Correct answer	1

6

EXAMINER'S REPORT

The question tests candidates' ability to apply calculus to solve business questions – calculations of elasticity and the marginals.

About 65% of the candidates attempted the question but the performance was poor. Only about 20% scored above average. Some candidates did not demonstrate enough knowledge of differentiation and most of them could not recall the correct formula for elasticity.

Candidates are advised to always consult relevant texts when preparing for the examinations especially the ICAN study packs.

SOLUTION 3

x	f	Cf	fx	$x - \bar{x}$	$(x - \bar{x})^2$	$f(x - \bar{x})^2$
1499.5	6.2	6.2	9296.9	-5079	25796241	159,936,694.2
ss2499.5	5.9	12.1	14747.05	-4079	16638241	98,165,621.9
3499.5	7.2	19.3	25196.4	-3079	9480241	68,257,735.2
4499.5	8.8	28.1	39595.6	-2079	4322241	38,035,720.8
5499.5	7.8	35.9	42896.1	-1079	1164241	9,081,079.8
6499.5	15.0	50.9	97492.5	-79	6241	93,615.0
7499.5	17.6	68.5	131991.2	921	848241	14,929,041.6
8499.5	12.8	81.3	108793.6	1921	3690241	47,235,084.8
9499.5	8.5	89.8	80745.75	2921	8532241	72,524,048.5
10499.5	10.2	100	107094.9	3921	15374241	156,817,258.2
			657850			665,075,900.0

$$(a) \quad Q_1 = L_{q_1} + \left(\frac{\frac{N}{4} - Cf_{bq_1}}{fq_1} \right) cq_1$$

$$= 3999.5 + \left(\frac{25 - 19.3}{8.8} \right) 1000$$

$$= 3999.5 + 647.73$$

$$= \text{N}4,647.23$$

$$Q_3 = L_{q_3} + \left(\frac{\frac{3N}{4} - Cf_{bq_3}}{fq_3} \right) cq_3$$

$$= 7999.5 + \left(\frac{75 - 68.5}{12.8} \right) 1000$$

$$= 7999.5 + 507.8125$$

$$= \text{N}8,507.31$$

$$\therefore \text{Semi-Inter-quartile Range} = \frac{1}{2}(Q_3 - Q_1)$$

$$= \frac{8507.31 - 4647.23}{2}$$

$$= \text{N}1,930.04$$

$$(b) \quad \bar{x} = \frac{\sum fx}{\sum f}$$

$$= \frac{657850}{100}$$

$$= 6578.5$$

$$\begin{aligned}
 \text{SD} &= \sqrt{\frac{\sum f(x - \bar{x})^2}{\sum f}} \\
 &= \sqrt{\frac{665075900}{100}} \\
 &= \sqrt{6650759} \\
 &= 2578.91
 \end{aligned}$$

ALITER

(a)

x	f	fx	fx^2
1499.5	6.2	9296.9	13940701.55
2499.5	5.9	14747.05	36860251.48
3499.5	7.2	25196.4	88174801.80
4499.5	8.8	39595.6	178160402.20
5499.5	7.8	42896.1	235907102.00
6499.5	15.0	97492.5	633652503.80
7499.5	17.6	131991.2	989868004.40
8499.5	12.8	108793.6	924691203.20
9499.5	8.5	80745.75	767044252.10
10499.5	10.2	107094.9	1124442903.00
	100	657850	4992742125.53

$$\begin{aligned}
 \text{(b) SD} &= \sqrt{\frac{\sum fx^2 - \frac{(\sum fx)^2}{\sum f}}{\sum f}} \\
 &= \sqrt{\frac{4992742125.53 - \frac{(657850)^2}{100}}{100}} \\
 &= \sqrt{\frac{4992742125.53 - 4327666225}{100}} \\
 &= \sqrt{665075901} \\
 &= 2578.91
 \end{aligned}$$

MARKING GUIDE

	Marks
FOR THE TABLE	
- Correct Class marks	1
- Correct Cumulative Frequency (cf)	1
- Correct fx (at least seven)	1½
- Correct $\sum fx$	½
- Correct $f(x - \bar{x})^2$ (at least six)	2
- Correct $\sum f(x - \bar{x})^2$	<u>1</u>
	7

a.	- Correct substitution in Q_1 formula	2	
	- Simplifying the expression	$\frac{1}{2}$	
	- Correct answer	1	
	- Correct substitution in Q_3 formula	2	
	- Simplifying the expression	$\frac{1}{2}$	
	- Correct answer	1	
	- Substitution in Semi Inter-quartile Range	1	
	- Correct answer	<u>1</u>	9
b.	- Correct mean	1	
	- Correct substitution in SD formula	1	
	- Simplifying the expression	1	
	- Correct answer	<u>1</u>	4
c.	- Correct Mean	1	
	- Correct substitution in SD formula	1	
	- Simplifying the expression	1	
	- Correct answer	<u>1</u>	4
			<u>20</u>

ALITER TO SOLUTION 3(b)

- Correct Class marks	1	
- Correct (fx) (at least seven)	$1\frac{1}{2}$	
- Correct $(\sum fx)$	$\frac{1}{2}$	
- Correct $(fx)^2$ (at least six)	2	
- Correct $\sum fx^2$	1	
- Correct substitution in formula	1	
- Simplification	1	
- Further simplification	1	
- Correct answer	<u>1</u>	10

EXAMINER'S REPORT

The question requires the calculation of measures of variation – semi inter-quartile range and standard deviation.

About 85% of the candidates attempted the question with only 60% of them scoring 8 marks or more out of 20 marks.

The question is very straightforward but candidates were not able to handle the large figures very well.

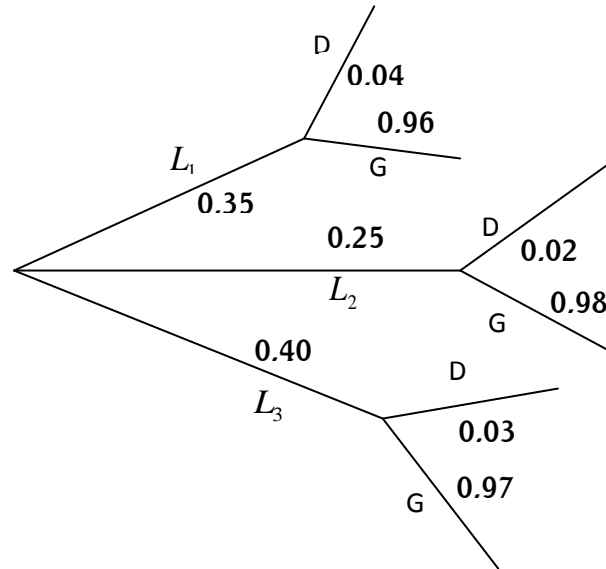
Candidates are advised to practise more questions with large figures because accountants are supposed to be able to handle large figures.

SOLUTION 4

(a) Let

D represents defective item

G represents non-defective item



$$\begin{aligned} \text{(b)(i)} \quad P(D) &= P(L_1 \cap D) + P(L_2 \cap D) + P(L_3 \cap D) \\ &= P(L_1) P(D/L_1) + P(L_2) P(D/L_2) + P(L_3) P(D/L_3) \\ &= (0.35)(0.04) + (0.25)(0.02) + (0.40)(0.03) \\ &= 0.014 + 0.005 + 0.012 \\ &= 0.031 \end{aligned}$$

$$\begin{aligned} \text{(b)(ii)} \quad P(L_1 \text{ or } L_3/D) &= P(L_1 \cup L_3/D) \\ &= \frac{P[(L_1 \cup L_3) \cap D]}{P(D)} \\ &= \frac{P(L_1 \cap D) + P(L_3 \cap D)}{P(D)} \\ &= \frac{0.35(0.04) + 0.40(0.03)}{0.031} \\ &= \frac{0.026}{0.031} \\ &= 0.8387 \end{aligned}$$

MARKING GUIDE

			Marks
a.	- 1 mark for each of the correctly labeled L_1 , L_2 and L_3 branches and $\frac{1}{2}$ mark for each of the correctly labeled D and G branches	6	
	- Correct identification of letters used on the branches	<u>1</u>	7
b. (i)	- Each correct term (1 mark)	3	
	- Simplification of terms (1 mark each)	3	
	- Correct answer	<u>2</u>	8
(ii)	- Correct substitution in formula	2	
	- Simplification of expression	2	
	- Correct answer	<u>1</u>	5
			<u>20</u>

EXAMINER'S REPORT

The question tests the candidates' understanding of tree diagram and conditional probability.

About 50% of the candidates attempted this question. About 70% scored above average and some of them showed fair knowledge of the tree diagram but most of them could not apply the conditional probability concept required in the other aspects of the question.

Generally, candidates did not have good grasp of Probability Theory. It is suggested that candidates should study this topic very well against the future.

SOLUTION 5

(a)

SCORES (x)	f	cf	fx
6	1	1	6
7	1	2	7
8	2	4	16
9	2	6	18
10	2	8	20
11	1	9	11
12	3	12	36
13	1	13	13
14	4	17	56
15	3	20	45
16	1	21	16
17	1	22	17
18	1	23	18
19	1	24	19
	24		298

$$\begin{aligned}
 \text{(i) Mean } (\bar{x}) &= \frac{\sum fx}{\sum f} \\
 &= \frac{298}{24} \\
 &= 12.42
 \end{aligned}$$

ALITER TO 5(a)(i)

$$\begin{aligned}
 \text{(i) Mean} &= \frac{\sum x}{n} \\
 &= \frac{6 + 7 + 8 + 8 + 9 + 9 + 10 + 10 + 11 + 12 + 12 + 12 + 13 + 14 + 14 + 14 + 14 + 15 + 15 + 15 + 16 + 17 + 18 + 19}{24} \\
 &= \frac{298}{24} \\
 &= 12.42
 \end{aligned}$$

$$\begin{aligned}
 \text{(ii) Median} &= \frac{12 + 13}{2} \\
 &= 12.5
 \end{aligned}$$

1st ALITER TO 5(a)(ii)

6,7,8,8,9,9,10,10,11,12,12,12,13,14,14,14,14,15,15,15,16,17,18,19

Median position = 12th and 13th

Or

$$\text{Median position} = \frac{(n+1)^{th}}{2} = \frac{24+1}{2} = 12.5$$

$$\begin{aligned}\text{Median} &= \frac{12+13}{2} \\ &= 12.5\end{aligned}$$

2nd ALITER TO 5(a)(ii)

Stem and leaf

Ten	Unit
1	2 4 8 1 5 5 0 4 9 4 3 4 2 6 0 2 5 7
0	7 8 9 6 9 8

We can now order them as

Ten	Unit
0	6 7 8 8 9 9
1	0 0 1 2 2 <u>2</u> <u>3</u> 4 4 4 4 5 5 5 6 7 8 9

We now count 12 digits from either sides

(i.e. from beginning to the middle and from the end to the middle)

$$\begin{aligned}\therefore \text{Median} &= \frac{12+13}{2} \\ &= 12.5\end{aligned}$$

(iii) Mode = 14

The mark with the highest frequency

(b)

x	y	x^2	y^2	xy
30	42	900	1764	1260
25	45	625	2025	1125
40	55	1600	3025	2200
35	50	1225	2500	1750
50	60	2500	3600	3000
30	40	900	1600	1200
55	70	3025	4900	3850
20	35	400	1225	700
285	397	11175	20639	15085

(b)(i) The Pearson's Product Moment Correlation Coefficient between x and y is given as:

$$\begin{aligned} r &= \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}} \\ &= \frac{8(15085) - 285(397)}{\sqrt{[8(11175) - (285)^2][8(20639) - (397)^2]}} \\ &= \frac{120680 - 113145}{\sqrt{(89400 - 81225)(165112 - 157609)}} \\ &= \frac{7535}{\sqrt{8175(7503)}} \\ &= \frac{7535}{\sqrt{61337025}} \\ &= \frac{7535}{7831.796} \\ &= 0.962 \end{aligned}$$

(b)(ii) The result above shows that there is a very strong positive correlation between the company's annual expenditure and its annual income.

ALITER TO 5(b)

(i)

x	y	$x - \bar{x}$	$y - \bar{y}$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})(y - \bar{y})$
30	42	-5.62	-7.62	31.58	58.06	42.82
25	45	-10.62	-4.62	112.78	21.34	49.06
40	55	4.37	5.37	19.09	28.83	23.46
35	50	-0.62	0.37	0.38	0.13	-0.22
50	60	14.37	10.37	206.49	107.53	149.01
30	40	-5.62	-9.62	31.58	92.54	54.06
55	70	19.37	20.37	375.19	414.93	394.56
20	35	15.62	-14.62	243.98	213.74	228.36
285	397	-		1021.07	937.10	941.11

$$\begin{aligned}\bar{x} &= \frac{\sum x}{n} \\ &= \frac{285}{8} \\ &= 35.625\end{aligned}$$

$$\begin{aligned}\bar{y} &= \frac{\sum y}{n} \\ &= \frac{397}{8} \\ &= 49.625\end{aligned}$$

$$\begin{aligned}\therefore r &= \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} \\ &= \frac{941.11}{\sqrt{1021.07(937.10)}} \\ &= 0.96\end{aligned}$$

MARKING GUIDE

			Marks
(a)	FOR THE TABLE		
	- Correct frequency (f) column	1	
	- Correct cumulative frequency (cf) column	1	
	- Correct fx column	1	
	- Correct $\sum fx$	<u>$\frac{1}{2}$</u>	$3\frac{1}{2}$
(i)	- Correct substitution in the formula for the mean	1	
	- Correct answer	<u>1</u>	2
(ii)	- Identification of 12 and 13 as median position	1	
	- Average of 12 and 13	1	
	- Correct answer	<u>1</u>	3
(ii)	- Correct mode answer	1	
	- Correct reason for picking 14	<u>$\frac{1}{2}$</u>	$1\frac{1}{2}$
(b) (i)	For the Table		
	- Correct $\sum x$	$\frac{1}{2}$	
	- Correct $\sum y$	$\frac{1}{2}$	
	- Correct x^2 column	1	
	- Correct $\sum x^2$	$\frac{1}{2}$	
	- Correct y^2 column	1	
	- Correct $\sum y^2$	$\frac{1}{2}$	
	- Correct xy column	$1\frac{1}{2}$	
	- Correct $\sum xy$	$\frac{1}{2}$	
	- Correct substitution in the formula	1	
	- Correct simplification	1	
	- Correct answer	<u>1</u>	9
(ii)	- Correct comments		1
			<u>20</u>
1st ALITER TO SOLUTION 5(a)			
(i)	- Correct addition of scores	1	
	- Correct sum of 298	1	
	- Correct substitution for the Mean i.e. $\frac{298}{24}$ (with 24 as the divisor)	1	
	- Correct answer	<u>1</u>	4
(ii)	- Arrangement of scores in either ascending or descending order	1	
	- Identification of Median position	1	
	- Correct average or Median value	1	
	- Correct answer	<u>1</u>	4
(ii)	- Correct reason	1	
	- Correct answer	<u>1</u>	2
			<u>10</u>

2nd ALITER TO SOLUTION 5(a)

(ii)	-	Correct unordered stem and leaf	1	
	-	Correct ordered stem and leaf	1	
	-	Identification of 12 and 13 as middle value and find its average	1	
	-	Correct answer	<u>1</u>	4

ALITER TO SOLUTION 5(b)

(i)	-	Correct $(\sum x)$	$\frac{1}{2}$	
	-	Correct $(\sum y)$	$\frac{1}{2}$	
	-	Correct \bar{x}	$\frac{1}{2}$	
	-	Correct \bar{y}	$\frac{1}{2}$	
	-	Correct $(x - \bar{x})^2$ column	1	
	-	Correct $\sum (x - \bar{x})^2$	$\frac{1}{2}$	
	-	Correct $(y - \bar{y})^2$ column	1	
	-	Correct $\sum (y - \bar{y})^2$	$\frac{1}{2}$	
	-	Correct $(x - \bar{x})(y - \bar{y})$ column	1	
	-	Correct $\sum (x - \bar{x})(y - \bar{y})$	$\frac{1}{2}$	
	-	Correct substitution in the formula	1	
	-	Correct simplification	$\frac{1}{2}$	
	-	Correct answer	<u>1</u>	9
(ii)	-	Correct comment		<u>1</u>
				<u>10</u>

EXAMINER'S REPORT

The question requires the calculation of measures of Central tendency and the Pearson's product-moment correlation coefficient. As expected, this was the most popular question as about 97% of the candidates attempted it.

The question is very straight-forward and most of the candidates were able to do the correct thing.

More than 60% of them scored above average.

Candidates are advised to be more careful when substituting values into the relevant formula

SOLUTION 6

Let x be amount invested in conservative investment

Let y be amount invested in speculative investment

Return per Naira invested in conservative investment = $\text{K}1.6$

Return per Naira invested in speculative investment = $\text{K}2.0$

(a) Linear programming problem

(b)(i) Z = Returns on investment

$$Z = (\text{Return}/\text{Naira amount invested in conservative}) + (\text{Return}/\text{Naira amount invested in speculative})$$

$$Z = 1.6x + 2y$$

(ii) $x + y \leq 100,000$ (Available fund constraint)

$x \leq 80,000$ (Conservative investment policy constraint)

$y \geq 12,000$ (speculative investment policy constraint)

$y \leq 1/3 x$ (monetary policy constraint)

(iii) LP problem (model)

$$\text{Max } Z = 1.6x + 2y$$

Subject to:

$x + y \leq 100,000$ (available fund constraint)

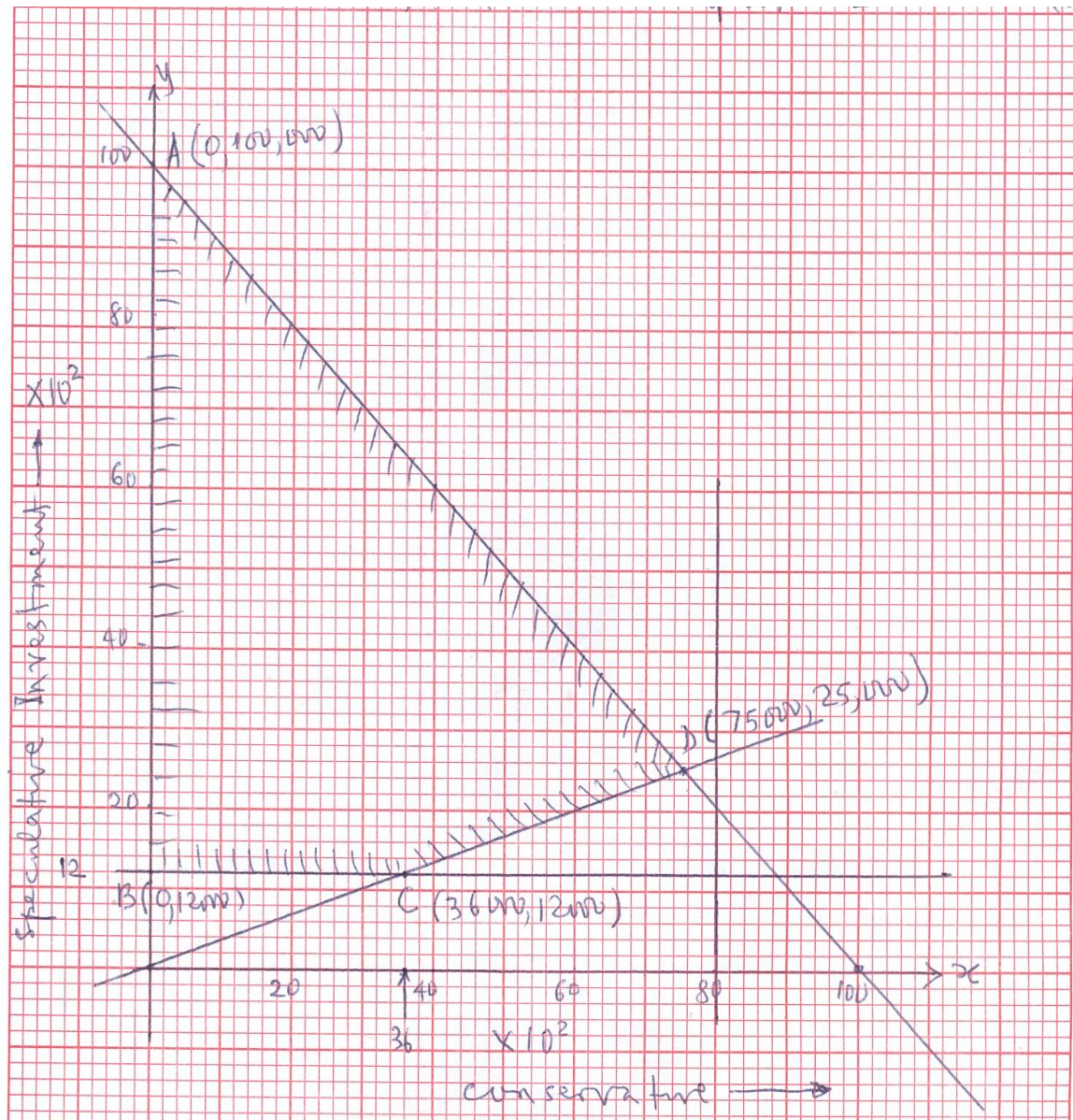
$x \leq 80,000$ (Conservative investment policy constraint)

$y \geq 12,000$ (Speculative investment policy)

$y \leq 1/3 x$ (monetary policy constraint)

\therefore Non negativity/hidden constraint $x, y \geq 0$

Tutorial for Question 6 as a complete LP problem (it is not part of the original question)



A (0, 100,000)	Z = ₦200,000
B (0, 12,000)	Z = ₦24,000
C (36,000, 12,000)	Z = ₦81,000
D (75,000, 25,000)	Z = ₦170,000

CONCLUSION

Maximum return equals to N200,000.

This requires that the Community Bank should put ₦100,000 in speculative while no amount should be put into conservative

Note: The graphical solution provided above is not part of the required solution. It is given as a tutorial for the solution of Linear Programming (LP) problem.

MARKING GUIDE

			Marks
a.	Stating the correct OR problem		2
b.(i)	- Representation of investment BY VARIABLES	2	4
	- Stating correct objective fx	<u>2</u>	
(il)	Stating the constraints for		8
	- Available fund	2	
	- Conservative Investment	2	
	- Speculative Investment	2	
	- Monetary policy	<u>2</u>	
(ii)	- Stating Max $Z =$	2	6
	- Stating subject to	1	
	- $\frac{1}{2}$ mark for stating each of 4 constraints	2	
	- Stating the non-negativity constraint	<u>1</u>	
			<u>20</u>

EXAMINER'S REPORT

The question tests candidates' ability to formulate a linear programming (LP) from given information. About 25% of the candidates attempted the question.

About 30% of the candidates who attempted the question scored 10 out of 20 marks.

Most of the candidates could not formulate the required *LP* problem.

The information given was adequate but the candidates were not able to interpret it correctly.

Candidates are advised to understand the Linear Programming very well for the future.

FOUNDATION LEVEL EXAMINATION – NOVEMBER 2015

BUSINESS AND FINANCE

Time Allowed: 3 hours

SECTION A: MULTIPLE-CHOICE QUESTIONS (20 Marks)

ANSWER ALL QUESTIONS IN THIS SECTION

Write **ONLY** the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/statements.

1. The latin word “agenda” means
 - A. Matters arising
 - B. Notice
 - C. Correspondence
 - D. Report
 - E. Things to be done
2. Which of the following should **NOT** be the objective of a business organisation?
 - A. Pay tax as at when due
 - B. Obey laws enacted by the National Assembly
 - C. Keep clean environment
 - D. Encourage tax avoidance
 - E. Encourage tax evasion
3. Which of the following is **NOT** a factor to be considered when deciding the form of a business enterprise?
 - A. The degree of personal liability
 - B. The willingness to share decision making powers and risks
 - C. The cost of establishing the business
 - D. The location of the business
 - E. The legal requirements concerning the provision of public information
4. The following are advantages of decentralisation **EXCEPT** that it
 - A. Promotes development of general managers
 - B. Aids adaptation to fast-changing environment
 - C. Enhances a uniform policy
 - D. Relieves top management of some burden of decision making
 - E. Gives managers more freedom and independence in decision making

5. Which of the following options is **NOT** a characteristic of business environment?
- F. Complexity
 - G. Dynamism
 - H. Multi-facets
 - I. Far-reaching impact
 - J. Predictability
6. Management function is synonymous with
- A. Management process
 - B. Scientific management
 - C. Managerial roles
 - D. Managerial skills
 - E. Strategic management
7. Which of the following statements is **NOT** true of objectives?
- A. Specific
 - B. Measurable
 - C. Time bound
 - D. Relevant to the context of the vision of an organisation
 - E. Achievable within the undefined time frame
8. Which of the underlisted short-term finance sources can be regarded as a spontaneous source of short term fund?
- A. Bank overdrafts
 - B. Accruals
 - C. Line of credit
 - D. Revolving credit agreement
 - E. Commercial paper
9. Which of the following is **NOT** a feature of SWOT analysis?
- A. Strategic gap
 - B. Competitive threats
 - C. Opportunities availability
 - D. Weaknesses
 - E. Competitive advantage

10. The formula for calculating Net Present Value (NPV) of investment is

- A. $\sum_{t=1}^n \frac{ct}{(1+r)^t} - C_o$
- B. $\sum_{t=0}^n \left(\frac{ct}{1+r} \right)^t - C_o$
- C. $\sum_{t=1}^n \frac{ct}{(1+r^t)} - C_o$
- D. $\sum_{t=1}^n \frac{ct}{(1+r)^{t+1}} - C_o$
- E. $\sum_{t=1}^n \frac{cn}{(1+n)^r} - C_o$

Where

C_1, C_2, C_3, \dots represent cashflow in years 1,2,3,.....n

C_o is the initial capital outlay

n is the expected life of the investment

t = 1 up to including t=n

11. The virtue ethics theory was propounded by

- A. Immanuel Kant
- B. Aristotle
- C. Socrates
- D. Plato
- E. Hegel

12. The extent to which the individual perceives that effective performance will lead to desired rewards is described as

- A. Expectancy
- B. Instrumentality
- C. Valance
- D. Perception
- E. Productivity

13. The appropriate term for anything that a firm does better especially when compared to rival firms is called

- A. Opportunities
- B. Core competence
- C. Performance
- D. Competitive advantage
- E. Capability

14. Which of the following is **NOT** a barrier to effective communication?
- A. Status differences
 - B. Fear
 - C. Information overload
 - D. Information download
 - E. Verbal difficulties
15. Communication that flows from the superior to the subordinates and back from the subordinates to the superior is calledcommunication
- A. Vertical
 - B. Horizontal
 - C. External
 - D. Oral
 - E. Written
16. Strategy in the public sector differs from that in the private sector because
- A. They do not have customers
 - B. They do not have stakeholders
 - C. Planning horizons are determined by political considerations rather than market conditions
 - D. They do not have to make a profit
 - E. They do not manage cost
17. Which of the following is **NOT** an advantage of a partnership business?
- A. More financial resources
 - B. Registration with Corporate Affairs Commission
 - C. Payment of Corporate Income Tax
 - D. Sharing of risk and losses
 - E. Continuity
18. Which of the following options is **NOT** a functional strategy?
- A. Marketing strategy
 - B. Production strategy
 - C. Personnel strategy
 - D. Financial strategy
 - E. Diversification strategy
19. Which of the following is **NOT** a standard example of business communication method?
- A. Circulars
 - B. Newsletters
 - C. memorandum
 - D. Requisition
 - E. Telegram

20. Which of the following is **NOT** correct about a professional accountant?
- A. Providing crucial contributions to streamline business plans
 - B. Serving as part of management team of any organisation
 - C. Specialising in finance and accounting matters only
 - D. Involved in wide range of activities beyond finance reporting and accounting matters
 - E. Procuring capital for current and future success of the company

SECTION B: ANSWER ANY FOUR OUT OF SIX QUESTIONS IN THIS SECTION

(80 Marks)

QUESTION 1

The world in which businesses operate has become increasingly uncertain. By planning and identifying future risks and opportunities, businesses can act immediately to help create the most favourable future outcome and achieve goals and objectives.

- a. State **FIVE** reasons for planning. (5 Marks)
- b. Explain briefly **THREE** types of planning, considering time horizon.

(15 Marks)

(Total 20 Marks)

QUESTION 2

A firm has recently collected the following data in respect of its capital structure, expected earnings per share and required rate of return.

Capital Structure	Expected Earnings	Required
Debt Ratio	Per Share	Rate of Return
%	₹	%
0	3.10	14
10	3.80	16
20	4.60	17
30	5.25	19
40	5.70	20
50	5.00	22
60	4.50	24

You are required to:

- a. Compute the estimated share values. (10 Marks)
 - b. Determine the optimal capital structure based on the maximisation of expected earnings per share and the maximisation of share values. (5 Marks)
 - c. Which capital structure criterion would you recommend and why? (5 Marks)
- (Total 20 Marks)**

QUESTION 3

- a. The Business environment can have a fundamental impact on the degree to which a firm is able to develop and maintain successful transactions with its customers and consequently on its profitability and sustainability of its operations.
Explain briefly the following:
 - i. Product life cycle (5 Marks)
 - ii. PEST Analysis (4 Marks)
 - iii. SWOT Analysis (4 Marks)
 - b. State and explain the 7P's of marketing. (7 Marks)
- (Total 20 Marks)**

QUESTION 4

As a privileged member of society, a professional accountant has a vital role to play in protecting the public interest over and above personal considerations.

Required:

- a. State **SIX** roles of a professional accountant in the efficient utilisation of resources in society. (12 Marks)
 - b. Explain briefly **FOUR** advantages each of centralisation and decentralisation. (8 Marks)
- (Total 20 Marks)**

QUESTION 5

Work organisations are often structured around teams. However, teamwork brings about interactions among people which may sometimes lead to conflict.

- a. State and explain **FIVE** causes of conflict in organisations. (12 Marks)
 - b. Explain briefly **FOUR** strategies for managing conflict in work organisations. (8 Marks)
- (Total 20 Marks)**

QUESTION 6

Communication is the life-blood of all business organisations.

- a. Explain the concept of communication. (5 Marks)
 - b. Explain briefly **FIVE** reasons why communication is important to business organisations. (15 Marks)
- (Total 20 Marks)**

SOLUTIONS

MULTIPLE CHOICE SOLUTIONS

1. E
2. E
3. D
4. C
5. E
6. A
7. E
8. B
9. A
10. A
11. B
12. A
13. D
14. D
15. A
16. C
17. C
18. E
19. D
20. C

EXAMINER'S COMMENT

The Section tests all the areas of the business and finance concepts, principles and calculations. All candidates that took the paper scored 60% and above.

A number of candidates, however, still displayed inadequate knowledge of some basic business concepts as they were confused about some issues like the objectives and characteristics of a business organisation and barriers to effective communication. For better performance, candidates are advised to cover the syllabus with concentration.

SOLUTION 1

(a) The reasons for planning are:

- (i) Planning provides an overall directive and purpose for an organisation.
- (ii) It also breeds employee and organisational initiative and creativity.
- (iii) It allows an organisation to obtain the desired rate of growth and increased profitability.
- (iv) Planning helps an organisation to anticipate and prepare for unexpected change.
- (v) It helps an organisation to respond to and withstand competition.
- (vi) Planning is a rational and effective way of allocating the organisation's resources.
- (vii) Planning helps an organisation to cope with both social and political changes as well as other environmental changes.
- (viii) Planning serves as a control tool for an organisation's activities.
- (ix) It makes an organisation to be focused and goal directed.

- (b) (i) **Strategic (long-term) planning** is the process of determining how to pursue the organisation's long-term goals with the resources expected to be available. A well-conceived strategic plan communicates much more than general intentions about profit and growth. It specifies how the organisation will achieve a competitive advantage with profit and growth as necessary by-products. This type of planning takes more than three years. The top level managers are responsible for this type of planning because they have better information about the environment. Example includes planning for factory expansions, opening of new branches and development of new products.
- (ii) **Intermediate (medium-term) or Tactical Planning** is the process of determining the contributions subunits can make with allocated resources. Intermediate planning also serves as a means through which strategic plans can be achieved. This type of planning takes the period of one to three years. The middle level managers are responsible for this type of planning. An example includes sourcing for fund.
- (iii) **Operational (short-term) planning** is the process of determining how specific tasks can be accomplished on time with available resources. This planning is designed to start and end within a year. The lower level managers are responsible for this type of planning. The effect of environmental changes is minimal. Example includes plans to be used in meeting sales targets.

Marking Guide		Marks
(a)	1 mark per valid point stated on reasons for planning	5
(b)	Explanation of three types of planning with reference to the time horizon (max. 5 marks each)	<u>15</u>
		<u>20</u>

EXAMINER'S COMMENT

This question tests the ability of candidates on their understanding of how planning in any business organization can help in achieving organisational goals and objectives at a given period of time. The performance level was fair. About half of the candidates that attempted the question scored 50% and above. Though majority of the candidates were able to identify the three types of planning, they did not consider the time horizon for each type as required in the question.

Candidates are advised to read and have clear understanding of the question before attempting it.

SOLUTION 2

- (a) Estimated value of share is derived by this formula:

$$\frac{\text{Expected earnings per share}}{\text{Required rate of return}}$$

S/N	Capital structure Debt Ratio %	Expected EPS ₦	Required rate of return	Estimated share value
1	0	3.10	0.14	$\text{₦}3.10/0.14 = \text{₦}22.14$
2	10	3.80	0.16	$\text{₦}3.80/0.16 = \text{₦}23.75$
3	20	4.60	0.17	$\text{₦}4.60/0.17 = \text{₦}27.06$
4	30	5.25	0.19	$\text{₦}5.25/0.19 = \text{₦}27.63$
5	40	5.70	0.20	$\text{₦}5.70/0.20 = \text{₦}28.50$
6	50	5.00	0.22	$\text{₦}5.00/0.22 = \text{₦}22.73$
7	60	4.50	0.24	$\text{₦}4.50/0.24 = \text{₦}18.75$

- b. The appropriate optimal capital structure based on the maximization of expected earnings per share as well as the maximization of share value is where the Debt Ratio is 40%. This is the point where the two variables (EPS and Estimated Share Value) have the highest value of earnings per share of ₦5.70 and share value of ₦28.50 respectively.
- c. i. **Decision Rule**
Traditional capital structure approach states that the optimum capital structure is reached at the point in which share value is highest.
- ii. The capital structure criterion that is recommended is where the Debt Ratio is 40%. This is the ratio that gives the highest share value of ₦28.50.

Marking Guide			Marks
a.	(i)	Formula for calculation	2
	(ii)	Proper table designed with titles	1
	(iii)	One mark per correct column calculation	7
			10
b.	If explained fully with identified optimal capital structure figures, give maximum marks		5
c.	(i)	Award 1 mark for decision rule	1
	(ii)	Award 2 marks for correct identification of capital Structure criterion recommended	2
	(iii)	Award 2 marks for correct justification	<u>2</u>
			<u>5</u>
			<u>20</u>

EXAMINER'S COMMENT

The question tests the ability of candidates to determine the optimal capital structure that would maximize expected earnings per share and share values.

Less than 20 of the 346 candidates that wrote the examination attempted this question.

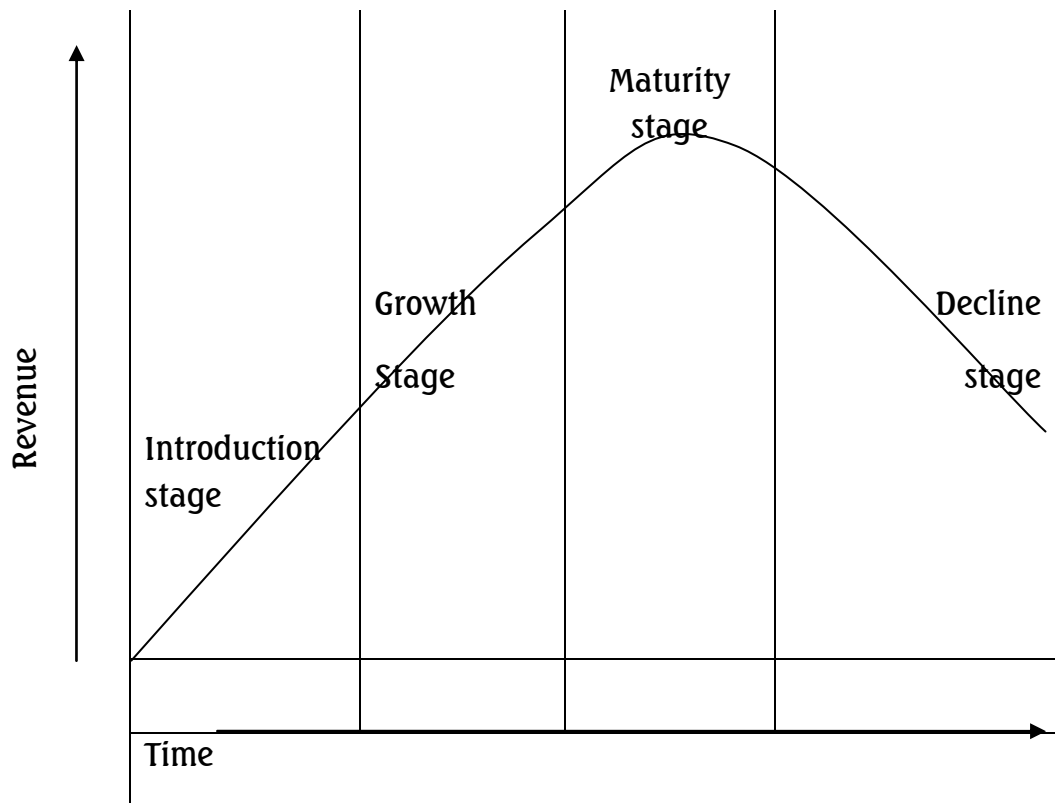
The performance was generally poor. The major pitfall was that the candidates did not understand the question properly.

Candidates are advised to read wide to cover the entire syllabus, noting that the subject also includes Finance also as questions can be drawn from that area.

SOLUTION 3

a. (i) **Product Life Cycle**

This describes the stages a product or service passes through in the market place. It is the period of time over which a product or services is developed, brought to market and eventually removed from the market. This includes the point of introduction, growth, maturity and decline.



- **Introduction stage:** This is the period the product or service is launched into the market and is characterized by slow sales growth. At this stage, the firm seeks to build product awareness and develop market for the product.
- **Growth stage:** At this stage the firm seeks to build brand preference and increase market share. This stage is characterized by strong growth in sales and profit.
- **Maturity stage:** At this stage, sales peak and remain fairly stable. Profit and prices stabilize and the opportunity for growth no longer exist. The period is characterized by severe competition with many brands in the market, although the life of the product might be extended by product updates.
- **Decline stage:** At this stage, the market for the product starts to shrink so do profits and could be due to the market becoming saturated or consumers switching to a new product. It is no longer possible to produce the product and sell it at a profit.

ii) **PEST Analysis:** It is a simple tool that helps a company to analyze the political, economic, socio-cultural and technological changes in the business environment. Through product analysis of these elements, managers are able to understand the key opportunities and threats that could be relevant to the organization.

- **Political:** These are the economic factors determine the extent to which a government may influence the economy or certain industry. Political factors include types of government in existence, tax policies, fiscal policy and/or trade tariffs, laws and legislations.
- **Economic factors:** These are the economic determinants that directly impact the company and have long term effects on it. Economic factors include inflation rates interest rates, foreign exchange rate, economic growth pattern, demand and supply.
- **Socio-cultural:** These factors scrutinize the social-environment of the market and gauge determinants like cultural trends, demographics, population analytics, family structure, etc.
- **Technological factors:** These factors pertain to innovations in technology that may affect the operations of the industry and the market favourably or unfavourably.

iii) **SWOT Analysis** is a form of situational analysis of the internal and external environment that affects or influences corporate performance. It is used to analyse the internal strength and weakness of a firm and environmental opportunities and threats facing the firm.

- (a) **Strengths:** the advantages the company have over the competition.
- (b) **Weakness:** the disadvantage compared to competition.
- (c) **Opportunities:** current trends which are waiting to be taken advantage of.
- (d) **Threats:** external events which may cause a problem and have a negative impact on the business .

b. The seven P's of marketing are:

- i. **Product:** This represents the goods or services being offered to the market.
- ii. **Price:** This is the exchange value for the goods or services.
- iii. **Promotion:** These represent activities to inform, remind and persuade consumers to buy the goods or services.

- iv. **Place:** This represents mechanism through which the goods or services reaches the final consumer.
- v. **People:** This is the human element in the delivery of the goods or services.
- vi. **Process:** This represents methods for producing the goods or services.
- vii. **Physical evidence/packaging:** This ensures that the customers see what they are buying.

Marking Guide			Marks
a.	i.	Give 1 mark each for the definition of product life cycle and list and explanation of 4 stages of product life cycle	5
	ii.	Explanation of PEST Analysis	2
		Explanation of components of PEST ½ mark each	2
	iii.	Explanation of SWOT, key words are internal and external appraisal	2
		Explanation of the various acronyms ½ mark each	2
b.	Give 1 mark for each point listed with explanation ½ mark for only listing		<u>7</u>
			20

EXAMINER'S COMMENT

The question tests candidates understanding of areas of the PEST and SWOT model of business environmental analysis and marketing mix with particular emphasis on the 7P's of marketing mix:

business environment analysis model, PEST and SWOT

marketing mix with particular emphasis on the 7Ps of marketing mix

About 99% of candidates attempted the question with about 30% of them scoring 70% and 50% of them scoring above 50%.

The major pitfall of candidates was the inability of some candidates to explain the meaning of business environment analysis. Though, many of the candidates have knowledge of SWOT & PEST, they were unable to explain adequately the relevant acronyms.

Candidates are advised to pay closer attention to this major area of business.

SOLUTION 4

(a) The roles of a professional accountant in the efficient utilization of resources in society are:

- i. Helping in the establishment of a common objective for the organisation so that everyone's activities are aligned with management set goals and vision.
- ii. Creating, implementing and improving accounting management information system to support strategic management, planning, decision making, execution and control activities.
- iii. Managing cost through rigorous planning, budgeting, forecast and process improvement efforts.
- iv. Identification and management of risks facing the organisation.
- v. Measuring and managing the performance of the organisation's activities.
- vi. Preparation and communication of financial and other performance information to the users which include investors, bankers, lenders, regulatory authorities, etc, in a manner that fosters trust.
- vii. Using his knowledge of the tax laws to help management in tax planning and management.
- viii. Detecting, investigating and preventing fraud in organisation.
- xix. Advising management on treasury matters.
- x. Engaging in financial planning and forecasting.

(b) i. **Advantages of centralization**

- Senior managers enjoy greater control over the organisation.
- Decisions can be made to benefit the organisation as a whole.
- The organization can benefit from decision making of experienced senior managers.
- In uncertain times, the organisation will need strong leadership and pull in the same direction. It is believed that strong leadership is often best given from above.
- Critical decisions are taken more quickly at the top.
- There is general consistency in all the organisation's actions and they are carried out in one location.
- The use of standardised procedures can result in cost savings.

- Policies, procedures and documentation can be standardised organization-wide.
- Centralization of functions can lead to training of specialists and development of general managers.

(ii) **Advantages of decentralization:**

- It prevents top management from being overloaded, that is freeing them from many operational decisions and enabling them to concentrate on their strategic responsibilities.
- It speeds up decision making process. A lot of time would be saved on decision making process because subordinates would not have to contact the superior every time before making a decision.
- Senior managers have time to concentrate on the most important decisions as other decisions can be undertaken by other people down the organisational structure.
- Decision-making is a form of empowerment. Empowerment can increase motivation which in turn increases staff output since they also feel psychologically that they are important in the organization.
- Empowerment will enable departments and their employees to respond faster to changes and new challenges.
- Subordinates involvement in decision making assists in their training for higher responsibilities in the future.

Marking Guide	Marks
• If a role is well explained give 2 marks x 6	12
• Four advantages of centralisation, give 1 mark each	4
• Four advantages of decentralisation, give 1 mark each	<u>4</u>
Total	<u>20</u>

EXAMINER'S COMMENT

The question which was in two parts tests candidates' understanding of the role of a professional accountant in society and the advantages of centralised and decentralized organization.

The performance level of the candidates was average.

The advantages of centralised and decentralised organisation was answered well, but the roles of a professional accountant was not answered properly by the candidates.

Most candidates did not fully understand the role of a professional accountant, confusing it with characteristics.

Candidates are encouraged to prepare adequately before each examination, ensuring that the syllabus is covered fully.

SOLUTION 5

(a) Causes of Conflict in organisations

- i. Personality clash/differences in personality
- ii. Power and status differences/competition for supremacy
- iii. Goal differences/divergence of interests
- iv. Differences over methods/approaches
- v. Competition for scarce resources
- vi. Unfulfilled expectations/poor working conditions
- vii. Communication breakdown/perceptual differences
- viii. Lack of accountability
- ix. External causes of conflicts
- x. Bad or poor management
- xi. Lack of cooperation
- xii. Cultural differences
- xiii. Role ambiguity
- xiv. Overlapping responsibility

EXPLANATIONS

- i. **Personality clash/differences in personality**
This sort of conflict emerges as a result of differences in personality of group members. Team members may possess different characters, nature, values and attitudes. Some team members might be aggressive, ambitious, reliable, calm etc. Different personality types have different implication for the individual perception/opinion on different issues.
- ii. **Power and status differences/competition for supremacy**
Power and status differences involve a situation when there is imbalance in the distribution of power and influences among team members. The low prestige individuals or departments may oppose or put up resistance to decisions that are not favourable to them.
- iii. **Goal differences/divergence of interests**
Individuals or departments in a team often have individualized or personal goals which may differ greatly. For example, management would be interested in improved profitability, while the workers would be mainly concerned about improved working conditions/salary. There is need to harmonise the varied goals reasonably to cater for all and avoid the dominant units overshadowing the others.

iv. Differences over methods/approaches

Two groups or units may have similar goals but disagree on the method to achieve the goals. For example, after agreeing on conducting training for advance Tellers, conflict may arise on which method is most appropriate for the training. Inability to agree on the best approach could be a source of conflict in organisation.

v. Competition for scarce resources

Conflict may occur when two managers argue over who has the greater need for an assistant or whose budget should be increased more or how to allocate recently purchased computers.

vi. Unfulfilled expectations/Poor working conditions

Inability of the organisation to satisfy workers' needs is a major source of conflict. Unfulfilled expectations/needs are often the ultimate cause of other relational breakdown in organisation. The major reason that expectations or needs are not fulfilled is that they are unreasonable, inappropriate or too numerous or unstated.

vii. Communication breakdown/Perceptual differences

Improper communication, wrong choice of words, illustrations and expressions can result in misunderstanding and conflict in organisation. A listener's incorrect inference about a speaker's intent often creates inter-personal conflict. Communication breakdown can be as a result of differences in perception. An example of communication breakdown can be misinterpretation or non-interpretation of collective agreement.

viii. Lack of accountability

Organizational conflict might arise from lack of accountability when something goes wrong. A situation where the culprit refuses to take responsibility for the wrong done can lead to conflict or suspicion.

ix. External causes of conflicts

1. Government's industrial and economic policies.
2. Unpatriotic and unethical behavior of the political and economic classes.
3. National economic mismanagement and general distribution of wealth and power in society.

x. Bad or poor management

This is when things are not done according to laid down procedures that could lead to the achievement of objectives.

This includes putting staff in positions they are not competent to occupy or when staff remunerations are not paid in time or paid at all. Poor management results in dissatisfied employee, low productivity, one way communication style, resistance to change, ego and impunity.

xi. Lack of cooperation

This is lack of desire to work together. This occurs when colleagues are unwilling or unable to work effectively together in the workplace. Lack of cooperation leads to resentment, dissatisfaction and reduced productivity.

xii. Cultural differences

Cultural differences are the variation in the way of life, belief, tradition and laws between different people. These differences can cause problem interpreting what the other person is doing.

xiii. Role ambiguity

Role ambiguity occurs when people are unclear or uncertain about their expectation within their roles on the job or work place. It results when the definition of a person's job is vague or ill-defined.

xiv. Overlapping /responsibility

This is a situation where more than one individual is responsible for the same activity. When two or more employees are unclear about who should do a job because of overlapping responsibilities, it usually leads to conflict and poor working relationship. Often the job does not get done since each employee assumes the other will do it.

(b) Strategies for managing conflicts in organisations

(i) Conflict stimulating method

When conflict is at a low level, people are generally passive and generally unwilling to rock the boat. An outsider with different backgrounds, values and styles should be employed to shake up stagnant unit or restructure by breaking up the old work teams who have formed dysfunctional cliques.

(ii) The Competing Style

This relates to being assertive in taking a stand on conflicting issues. The dominance or assertive method involves employing veto power to resolve the conflict. This may be used when quick and decisive action needs to be taken on important issues.

(iii) The Avoiding Style

This style reflects neither assertiveness nor cooperation. It may be adopted when there is need for time to source for additional information. It is usually used for issues that are trivial.

(iv) The Compromising Style

This style involves a moderate mix of assertiveness and cooperativeness. It can be used when both parties or departments possess roughly equal powers and the goals of both parties are important.

(v) The Accommodating Style

This involves high degree of cooperativeness. This approach may become useful when a team member or group feels disadvantaged. Additionally, when issues involved are more important to the other group members or when preserving social credits for defense in later discussions is important.

(vi) The Collaborative Style

This approach requires a high degree of assertiveness and cooperativeness to enable both parties win. It is predicated on substantial bargaining and negotiation tactics. Consensus on best solution to the problem and confrontation method of expressing respective views directly by the opposing parties can be used.

(vii) Other Approaches

- Removal of areas of ambiguities in delineating authorities and responsibilities.
- Improvement in communication among various units of the organizations.
- To ensure accountability, make everyone who comes into contact with a document should sign his or her name with date.
- To resolve the conflict of personality differences, workers should be trained to recognize different personality types along with their associated strength and weaknesses.
- Effective grievance handling procedure should be put in place.

Marking Guide

Marks

(a)(i)	1 mark for any valid point stated, for 5 points	5	
(ii)	1½ marks for a well explained point	<u>7</u>	12
(b)	2 marks for a point explained fully for 4 points	<u>8</u>	
		<u>8</u>	
		<u>20</u>	

EXAMINER'S REPORT

The question tests candidates' understanding of causes of conflicts in organisations and strategies for managing such conflicts.

Candidate's performance was fair. About 40% of the candidates that attempted the question scored above 45% of the total of twenty marks.

Candidates that attempted this question appear not to have been fully prepared for this question. This was inferred from their pedestrian approach to the question.

Less than 20% of the candidates used the right terminology in the suggested strategies for managing conflicts. The candidates merely juxtaposed and presented the opposite of causes as the strategies. Candidates are advised to cover the syllabus for a satisfactory performance.

SOLUTION 6

- (a) Communication is the process of transmitting and exchanging ideas, information, knowledge, skills, symbols from one person, group or organization to another. It is the transfer of ideas or knowledge in ways that enable the recipient to understand, react to and act on the information received. Communication will be meaningless or incomplete if the receiver does not understand the message. Communication should, therefore, be seen as a two-way process in order to be effective because any information or messages sent or received must be reciprocal. Business communication is the official and unofficial flow of information in an organisation.
- (b) Communication is important because it:
- (i) helps to explain the goals and objectives, strategies, policies and activities which are needed by all members of the organisation to ensure that the organisation attain organisational success.
 - (ii) helps employees to understand the goals and business activities in the organisation so as to foster better team-spirit between the management and employees.
 - (iii) enables the employees to be better placed so as to positively represent the interest of the organisation.
 - (iv) helps the organisation to integrate all employees' into a membership of effective work group(s), all working towards the interest of the organization.
 - (v) enables management to elicit the views of employees as well as those of members of the public towards its activities thereby giving it the opportunity to review its activities as may be considered necessary.
 - (vi) ensures good relations within the organisation and between it and other parties including banks, investors, customers, government agencies, and the general public.
 - (vii) aids decision making in an organisation.
 - (viii) helps to organize the flow of information in the organisation.
 - (ix) helps to minimize conflicts and arguments in the workplace.
 - (x) helps in keeping proper records.
 - (xi) encourages a peaceful working environment.
 - (xii) assist managers to plan and control operations more effectively.
 - (xiii) it helps Secrecy, misunderstanding and mistrust Open communication increases trust.

(a)	If the concept of communication is fully explained, give maximum marks	5
(b)	Explanation of any five reasons why communication is important to business organisation (maximum three marks each)	15
		<hr/> 20 <hr/>

EXAMINER'S COMMENT

This question tests the candidates' understanding of the importance of communication in business organizations.

The performance level was below average. Only 45% of the candidates that attempted the question scored 10 marks and above.

Most of the candidates did not have the in-depth knowledge of the concepts, principles as well as terminology of communication as related to business organisations.

Candidates are advised to always make use of the syllabus to guide them while preparing for this subject.

FOUNDATION LEVEL EXAMINATION-NOVEMBER 2015

FINANCIAL ACCOUNTING

Time Allowed: 3 hours

SECTION A: PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

ANSWER ALL QUESTIONS IN THIS QUESTION

Write ONLY the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/statements.

1. In accordance with Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS), the residual interest in the assets of the entity after deducting all its liabilities is termed
 - A. Liability
 - B. Provision
 - C. Equity
 - D. Assets
 - E. Reserves
2. When errors occur in the ledger, it can only be corrected through the
 - A. Journal
 - B. Sales Day Book
 - C. Purchase Day Book
 - D. Control Account
 - E. General Ledger

Use the following information to answer questions 3 and 4:

	₦'000
Motor Van	50,000
Furniture	25,000
Cash	12,500
Payables	35,000

Loan is 30% of Payables

3. What is the Capital?
 - A. ₦34,500
 - B. ₦42,000
 - C. ₦52,500
 - D. ₦75,000
 - E. ₦95,000

4. What is the percentage of liabilities against assets?
- A. 48%
 - B. 50%
 - C. 52%
 - D. 54%
 - E. 56%
5. The extension of a trial balance to incorporate details of accounting adjustments, in order to arrive at the final trial balance for the preparation of statement of profit or loss and statement of financial position is referred to as:
- A. Extension summary sheet
 - B. Spread sheet analysis
 - C. Extended Accounts balances lists
 - D. Extended trial balance
 - E. Extended balance sheet
6. The following are the components of financial statements EXCEPT
- A. Statement of financial position
 - B. Statement of profit or loss and other comprehensive income
 - C. Statement of changes in equity
 - D. Statement of cash flows
 - E. Statement of financial plan

Use the following information to answer questions 7 & 8

Abiao Company purchased security staff uniform for ₦250,000. The Accounts Officer felt that the amount was too high to be charged to expenses and consequently debited the amount to office equipment account.

7. The journal entry to correct this error is
- A. Dr. Staff uniform account Cr. Office equipment account
 - B. Dr. Staff uniform account Cr. Suspense account
 - C. Dr. Office equipment account Cr. Suspense account
 - D. Dr. Office equipment account Cr. Staff uniform account
 - E. Dr. Purchases account Cr. Office equipment account
8. Compute the revised net profit, given a net profit before the adjustment as ₦550,000.
- A. ₦300,000
 - B. ₦400,000
 - C. ₦525,000
 - D. ₦700,000
 - E. ₦800,000

Use the following information to answer questions 9 and 10:

The following statistics were extracted from the books of Alaye Enterprises for the year ended December 31, 2014:

	₦'000
Cash received from customers	28,670
Cash paid to suppliers and employees	26,278
Income tax paid	792
Income tax payable	650
Purchase of property, plant and equipment	450
Proceeds from sale of motor vehicle	10

9. What is the net cash flow from operating activities of Alaye Enterprises for the year ended December 31, 2014?
 - A. ₦1,140,000
 - B. ₦1,600,000
 - C. ₦1,742,000
 - D. ₦1,932,000
 - E. ₦2,392,000
10. What is the net cash flow from investing activities of Alaye Enterprises for the year ended December 31, 2014?
 - A. ₦440,000
 - B. ₦450,000
 - C. ₦(440,000)
 - D. ₦(450,000)
 - E. ₦460,000
11. In accordance with normal accounting practice the appropriate method for depreciating Loose Tools in the books of a business entity is
 - A. Sum of the years digit method
 - B. Reducing balance method
 - C. Straight line method
 - D. Revaluation method
 - E. Annuity method
12. Which of the following is **NOT** a source document used to update a Cash Book?
 - A. Cheque stub
 - B. Payment voucher
 - C. Receipts
 - D. Paying-in-slip
 - E. Debit note
13. Which of the following can best explain the term "Capital Expenditure"?
 - A. Expenditure relating to the issue of share capital
 - B. Expenditure on expensive assets
 - C. Expenditure relating to the acquisition or improvement of non-current assets
 - D. Expenditure on non-current assets including repairs and maintenance
 - E. Expenditure relating to entertainment of guests

14. The following clauses are stated in Partnership Act 1890 **EXCEPT**:
- A. Rights and duties of each partner
 - B. The rate of interest to be charged on drawings
 - C. The rate of interest to be charged on loan granted by Partners
 - D. The nature of business to be engaged in by the partnership
 - E. Pattern of sharing profits or losses among the partners
15. Where there are no proper books of account, the equity at the commencement of a period is ascertained by preparing
- A. Statement of profit or loss
 - B. Statement of financial position
 - C. Statement of affairs
 - D. Bank reconciliation statement
 - E. Receivables and payables accounts
16. Which of the following should be included in the adjusted cash book?
- A. Cheque issued, presented and cashed
 - B. Opening bank balance
 - C. Bank charges and commission
 - D. Bank deposit
 - E. Cash payment made by the firm
17. Which of the following items is **NOT** expected to be found on the credit side of a receivable ledger control account?
- A. Cash received from customers
 - B. Value of goods returned by customers
 - C. Decrease in allowance for receivables
 - D. Discount allowed
 - E. Customers debt written-off
18. Which of the following items is **NOT** found on the debit column of a trial balance?
- A. Capital
 - B. Motor vehicle
 - C. Rent
 - D. Salaries and wages
 - E. Postage and stationery
19. Which of the following costs should **NOT** be included in the initial measurement of property, plant and equipment?
- A. Purchase price
 - B. Site preparation cost
 - C. Professional fees
 - D. Installation cost
 - E. Site administration and general overhead costs

20. The information below relates to the accounting period ended December 31, 2013.

	N
Prepaid rent brought forward	22,000
Rent paid during the period	216,000
Accrued rent carried forward	26,000

In line with accrual concept, what should be the amount of rent to be charged to statement of profit or loss in the year ended December 31, 2013?

- A. ~~N~~264,000
- B. ~~N~~242,000
- C. ~~N~~238,000
- D. ~~N~~216,000
- E. ~~N~~48,000

SECTION B: ANSWER ANY FOUR OUT OF SIX QUESTIONS IN THIS SECTION (80 Marks)

QUESTION 1

The following balances remained in the books of Lagbaja Plc at December 31, 2014 after determining the gross profit:

	N'000
Share capital, authorised and issued:	
200,000,000 ordinary shares of N 1 each	200,000
Cash at bank and in hand	500
Inventory at December 31, 2014	61,200
Trade receivables	18,005
Trade payables	15,009
Gross profit at December 31, 2014	128,942
Retained earnings	25,000
Salaries & Wages	28,430
Prepayments	600
Bad debts	500
Accrued expenses	526
Director's account (credit)	2,500
Finance cost on loan note ($\frac{1}{2}$ year to June 30, 2014)	600
Sundry expenses	4,100
Rates & insurance	1,520
6% Loan notes	20,000
Lighting & cooling	1,310
Postage, telephone and telegrams	800
Motor vehicle (cost N 25million)	15,000
Office fittings and equipment (cost N 65.5million)	42,350
Profit at January 1, 2014	22,300
Land and buildings at Cost	239,362

The following additional information is relevant:

- (i) Office fittings and equipment are to be depreciated at 15% of cost, and Motor vehicle at 20% of cost.
- (ii) Provisions are to be made for:
Directors' Fees ₦6,000,000
Audit Fees ₦2,500,000
- (iii) The amount of insurance includes a premium of ₦600,000 paid in September 2014 to cover the company against fire for the period September 1, 2014 to August 31, 2015.
- (iv) A bill for ₦548,000 in respect of electricity consumed up to December 31, 2014 has not been posted to the ledger.

Required:

- a. Prepare the Statement of profit or loss for the year ended December 31, 2014;
and (10 Marks)
- b. the Statement of financial position as at December 31, 2014. (10 Marks)

Notes to the Financial Statements are not required.

(Total 20 Marks)

QUESTION 2

- a. Bank Statement is a mirror of any entity's cash book and they are expected to have equal balances at any point in time. However, this is not usually the case. Based on the ongoing statement, state five reasons that could cause the bank statement balance to differ from the cash book balance.
(5 Marks)
- b. The Treasurer of Young Star Social Club (YSSC) did not keep proper records for receipts and payments for the month of December 2014 which is causing mistrust among members.
He has decided to seek for your assistance to prepare a bank reconciliation statement before presenting the account to the club members.
The bank statement, receipts and payments cash book of the club on December 31, 2014 showed a credit balance of ₦205,000 and ₦2,078,000 respectively.
A comparison of the bank statement with the receipts and payment cash book of the club revealed the following:
 - (i) Cheque drawn but not presented ₦3,160,000
 - (ii) Amount lodged in the bank but not credited ₦725,000
 - (iii) Entries in bank statement not recorded in receipts and payments cash book are shown below:

	N
- Standing order for loan refund	35,000
- Interest received on deposit account	18,000
- Bank charges	15,000
- Cheque paid-in but returned with "refer to drawer"	120,000

Required:

- (i) Prepare adjusted cash book as at December 31, 2014; and (8 Marks)
 - (ii) Bank Reconciliation Statement showing the balance on December 31, 2014 (7 Marks)
- (Total 20 Marks)**

QUESTION 3

- a. On January 1, 2013 Ajanaku Enterprises bought a motor vehicle for N1,850,000 with the estimated life span of four years and residual value of N50,000.
 - (i). Determine the depreciation rate, using the reducing balance method. (2 Marks)
 - (ii). Using the rate of depreciation derived in (i) above, calculate the amount of depreciation for years 2013 and 2014 respectively. Also disclose the carrying amount of the asset at the end of December 31, 2014 (3 Marks)
- b. The following transactions were recorded in the books of Lexus Enterprises for the three months ended March 31, 2014.
 - Jan. 1 Commenced business by introducing N250,000 into a bank account
 - Jan. 5 Bought N50,000 furniture from Adam Enterprises on credit.
 - Jan. 15 Bought office stationery for N1,000 paying by cheque.
 - Jan. 28 Bought goods for resale worth N25,000 paying by cheque.
 - Feb. 2 Paid Adam Enterprises a cheque of N35,000.
 - Feb. 3 Rent of N30,000 for business premises was paid by cheque.
 - Mar. 5 Bought goods on credit from Jay Enterprises for N35,000.
 - Mar. 8 Bought office stationery for N500 paying by cheque.

Required:

Post the above transactions in the relevant ledger accounts and balance the accounts. (15 Marks)

(Total 20 Marks)

QUESTION 4

- a. The information below shows the analysis of costs of a newly purchased equipment by JONAK Nig. Ltd.

	₦
Cost of equipment	3,000,000
2% cash discount for payment within 30 days which was enjoyed	60,000
Transport cost	100,000
Hospitality cost for factory workers during installation	25,000
Installation cost	150,000
Repair cost prior to use	65,000
Salaries of operators	125,000

Determine the total acquisition cost of the equipment. (5 marks)

MEMORY Nigeria Limited. decided to issue 100,000,000 ₦1 ordinary shares.

The terms of issue are stated below:

- (i) 30k on application
- (ii) 45k (including premium) on allotment
- (iii) 20k to be called one month after allotment
- (iv) 25k final call made four months later after allotment.

On December 29, applications were received for 120,000,000 shares.

On January 1, the shares were allotted so that every applicant received two-thirds of the number of shares applied for.

Excess application monies were held against the amount due on allotment.

On January 4, the cash due on allotment was received.

On February 1, the first call was made and on February 3, cash was received.

On May 1, the second call was made and cash was received on May 3.

Required:

- b. Raise the necessary Journals to record these transactions. (11 Marks)
- c. State the difference between authorised share capital and called-up share capital (4 Marks)
- (Total 20 Marks)**

QUESTION 5

- a. Define intangible non-current asset and give one example (2 Marks)
- b. Biggy and Smallie were in partnership, sharing profits and losses in ratio 2:1. They agreed to admit Fanny into the partnership from January 1, 2014. Fanny is to introduce ₦140,000 out of which ₦130,000 is to be his fixed capital. He is to receive a commission of ₦30,000 per annum in addition to a share of profit. The new profit sharing ratio is 2:2:1 to Biggy, Smallie and Fanny respectively. Other provisions of the Partnership Deed are:
- (i) Debit balance in current accounts at the beginning of the year is to attract 5% interest.
 - (ii) Goodwill is valued at ₦150,000. Goodwill is not to be retained in the partnership books.
 - (iii) Details of the existing partners fixed capital and current accounts for the purpose of the agreement are:

	Fixed Capital 31/12/2013 ₦	Current Account 31/12/2013 ₦
Biggy	360,000	100,000
Smallie	240,000	60,000 (DR)

- (iv) The draft final accounts for the year ended December 31, 2014, before taking into account Fanny's commission and interest on Partners' current accounts revealed a profit of ₦347,000.
- (v) The drawings made by the Partners are:

	₦
Biggy	95,000
Smallie	45,000
Fanny	73,900 (including commission)

Required:

Prepare a statement showing the sharing of profit of the partnership for the year ended December 31, 2014. (8 Marks)

- c. The trial balance of Mbobo Limited includes the following items:

	₦
Accounts receivable ledger control account	115,440
Accounts payable ledger control account	80,901
Suspense account (debit balance)	3,310

The following information is available.

- (1) The total of debit balances in the accounts receivable ledger is ₦116,374 and the total of credit balances is ₦1,234.
- (2) The accounts receivable ledger includes a debit balance of ₦700 for Entity C, and the accounts payable ledger includes a credit balance of ₦800 relating to Entity C. Only the net amount will eventually be paid.
- (3) Included in the credit balances in the accounts receivable ledger is a balance of ₦600 in the name of H. Potoka. This arose because a sales invoice for ₦600 had earlier been posted in error from the sales day book to the debit of the account of M. Potoka in the accounts payable ledger.
- (4) An allowance of ₦300 granted to a customer for some damaged goods had been omitted from the appropriate account in the accounts receivable ledger. This allowance had been included in the accounts receivable control account.
- (5) A cash receipt from a credit customer for ₦345 had been entered in the cash book as ₦245.
- (6) The bank balance of ₦1,700 had been included in the trial balance, in error, as an overdraft.
- (7) The debit balance on the insurance account in the nominal ledger of ₦3,456 has been included in the trial balance as ₦3,546.

Required:

- (i). Prepare a reconciliation of the accounts receivable ledger control account and the accounts receivable ledger balances
(8 marks)
 - (ii). Open a suspense account and post the entries required to clear this account
(2 marks)
- (Total 20 Marks)**

QUESTION 6

Accounting concepts are the broad principles and general assumptions underlying the preparation of financial statements. In line with IFRS Conceptual Framework on the fundamental assumptions underlying the preparation of financial statements.

Required:

- a. (i). Differentiate between cash, accrual and break-up bases, of accounting.
(6 Marks)
- (ii). State **ONE** setback associated with cash basis of accounting.
(2 Marks)
- b. Oluyemi Ventures prepares its financial statements to March 31, each year. The business pays rent quarterly in advance on January 1, April 1, July 1 and October 1, each year. The annual rent is ₦600,000. On June 30, 2013, the rent was increased to ₦900,000 per annum.

Required:

Calculate the amount of rent that will be recognised in the :

(i.) Statement of profit or loss for the year ended March 31, 2014. (3 Marks)

(ii.) Statement of financial position as at March 31, 2014 (1 Mark)

- c. D'favour owns several properties in Lagos which are let out to tenants. The summary of transactions at December 31, 2014 is given below:

	₦'000
Accrued rent at December 31, 2013	440
Prepaid rent at December 31, 2013	250
Rent received during 2014	2,550
Accrued rent at December 31, 2014	350
Prepaid rent at December 31, 2014	480
Uncollectable rent to be written-off	35
Agreement fee received	50

Required:

Prepare Rental Income Account to determine the amount of rent to be recognised in the statement of profit or loss. (8 Marks)

(Total 20 Marks)

SOLUTIONS

SECTION A

Multiple choice questions -1 mark each for 20 questions = 20 mks

PART I- MULTIPLE CHOICE SOLUTIONS

1. C
2. A
3. B
4. C
5. D
6. E
7. A
8. A
9. B
10. C
11. D
12. E
13. C
14. D
15. C
16. C
17. C
18. A
19. E
20. A

Workings:

3	<u>Assets:</u>	N'000	N'000
	Motor Vehicles		50,000
	Furniture		25,000
	Cash		<u>12,500</u>
	Total Assets		87,500

Liabilities:

Payables	(35,000)	
Loan (30% x 35,000)	<u>(10,500)</u>	
Total Liabilities		<u>(45,500)</u>
Capital		<u>42,000</u>

4 % of liabilities against assets = $45,500/87,500 \times 100 = \underline{52\%}$

8	<u>Computation of revised net profit</u>	N
	Net profit before adjustment	550,000
	Less: Staff uniform	<u>250,000</u>
	Revised net profit	<u>300,000</u>

9	<u>Cash flow from operating activities:</u>	N'000
	Cash received from customers	28,670
	Cash paid to suppliers and employees	(26,278)
	Income tax paid	<u>(792)</u>
	Net cash flow from operating activities	<u>1,600</u>

10	<u>Cash flow from investing activities</u>	
	Purchase of PPE	(450)
	Proceed from sales of motor vehicle	<u>10</u>
	Net cash flow from investing activities	<u>(440)</u>

20	<u>Rent Account</u>	N
	Prepaid rent brought forward	22,000
	Rent paid during the period	216,000
	Accrued rent carried forward	<u>26,000</u>
	Amount charged to SOPL	<u>264,000</u>

SOLUTION 1

a.

LAGBAJA PLC

Statement of Profit or Loss for the year ended 31 December, 2014

	N'000	N'000
Gross profit		128,942
Operating expenses:		
Salaries and wages	28,430	
Bad debts	500	
Sundry expenses	4,100	
Rates & Insurance (N1,520 - (8/12*N600))	1,120	
Lighting & cooling (N1,310+N548)	1,858	
Postage, telephone & telegrams	800	
Directors fees	6,000	
Audit fees	2,500	
Depr. Of Office fitting & equip (15% x N65.5million)	9,825	
Depr. Of motor vehicles (20% x N25million)	<u>5,000</u>	
Total operating expenses		<u>(60,133)</u>
Profit from operation		68,809
Finance cost (6% x N20,000,000)		<u>(1,200)</u>
Profit before taxation		67,609
Income tax expenses		-
Profit for the year		<u>67,609</u>

Statement of changes in equity for the year ended 31 December, 2014

	Ordinary Shares N'000	Retained Earnings N'000	Total N'000
Profit as at January 1, 2014	200,000	22,300	222,300
Retained earnings brought forward	-	25,000	25,000
Profit for the period	-	<u>67,609</u>	<u>67,609</u>
Balance as at December 31, 2014	<u>200,000</u>	<u>114,909</u>	<u>314,909</u>

b.

LAGBAJA PLC

Statement of financial position as at 31 December, 2014

Non-Current Assets:	N'000	N'000
Land and buildings		239,362
Motor vehicles		10,000
Fittings and equipment		<u>32,525</u>
Total Non-Current Assets		281,887
Current Assets:		
Inventory	61,200	
Trade Receivables	18,005	
Prepayment (600 + 400)	1,000	
Cash at bank and in hand	<u>500</u>	
Total Current Assets		<u>80,755</u>
TOTAL ASSETS		<u>362,592</u>
Equity and Liabilities:		
Share capital 200,000,000 ordinary shares of N1 each		200,000
Retained profits (22,300 + 67,609 + 25000)		<u>114,909</u>
Total Equity		314,909
Non-Current Liabilities:		
6% Loan notes		20,000
Current Liabilities:		
Accrued audit Fees	2,500	
Trade Payables	15,009	
Director's account (2500 + 6000)	8,500	
Accrued expenses (548 + 526)	1,074	
Accrued finance cost on loan notes	<u>600</u>	
		<u>27,683</u>
		<u>362,592</u>

Workings:

1. All the figures in bracket in the solution above are in N'000
2. Non-current assets

	Land & building	Motor Vehicle	Fittings & equipment
	N'000	N'000	N'000
Cost b/f	<u>239,362</u>	<u>25,000</u>	<u>65,500</u>
Depreciation:			
Bal b/f	-	10,000	23,150
Charge for the year		<u>5,000</u>	<u>9,825</u>
Bal c/f		<u>15,000</u>	<u>32,975</u>
Carrying amount 31/12/2014	<u>239,362</u>	<u>10,000</u>	<u>32,525</u>

Marking Guide	Marks
a) Correct heading	$\frac{1}{2}$
Entries in statement of profit or loss, excluding totals, 12 entries @ $\frac{1}{2}$ mark	6
Statement of changes in equity entries- 3entries @ $\frac{1}{2}$ mark in the total column	$1\frac{1}{2}$
Other workings – 5 entries subject to maximum of 4 entries @ $\frac{1}{2}$	<u>2</u>
Total marks	<u>10</u>
 b. Correct headings	$\frac{1}{2}$
Entries in Statement of financial position - 22 entries at $\frac{1}{4}$	$5\frac{1}{2}$
Workings – 16 entries @ $\frac{1}{4}$	<u>4</u>
 Total Marks	<u>10</u>

EXAMINER'S REPORT

The question tests candidates' understanding of the preparation of final accounts, that is, statements of profit or loss and financial position from balances extracted from the ledgers of the company.

About 80% of the candidates attempted the question and performance was below average.

Some candidates could not differentiate between revenue and capital expenditure thus resulting in wrong classification of figures. Few candidates failed to recognise that all figures in the question are in thousands naira (₦'000), thus resulting in loss of marks.

Candidates are advised to practice with past questions involving preparation of final accounts and also read and understand the question before proffering solution.

SOLUTION 2

2a. The disagreement between the bank statement and the cash book may be traced to the following factors:

- (i) Unpresented cheques: These are cheques issued by the account holder but they are yet to be presented for payments.
- (ii) Uncredited cheques: They are cheques lodged into the bank but not yet credited.
- (iii) Bank Charges: These are charges made by the bank such as commission on turnover and interest charged on bank overdraft facilities.
- (iv) Direct debits or standing order: These are debits in the bank statement representing payments made to third parties by the bank on the instruction of the account holder.
- (v) Dishonoured Cheques: These are cheques received and lodged into the bank account but were subsequently dishonored by the paying bank for reasons such as irregular signature and insufficient fund.
- (vi) Direct Credits: These are amounts received on behalf of the business directly by the bank. The bank statement would have been credited but not yet debited in the cash book.
- (vii) Errors made by the bank or business.

a. **YOUNG STAR SOCIAL CLUB**
ADJUSTED CASHBOOK AS AT 31 DECEMBER, 2014

	₦		₦
Interest received on deposit	18,000	Balance b/f	2,078,000
		Standing order	35,000
		Bank charges	15,000
Balance c/d	<u>2,230,000</u>	Returned cheques	<u>120,000</u>
	<u>2,248,000</u>		<u>2,248,000</u>

c. BANK RECONCILIATION STATEMENT AS AT 31 DECEMBER, 2014

	₦
Balance as adjusted per cash book	(2,230,000)
Add: Unpresented cheques	<u>3,160,000</u>
	930,000
Less: Uncredited cheques	<u>725,000</u>
Balance as per Bank Statement	<u>205,000</u>
OR	
Balance as per bank statement	205,000
Add: uncredited cheques	<u>725,000</u>
	930,000
Less: unpresented cheques	<u>(3,160,000)</u>
Balance as per adjusted cash book	<u>(2,230,000)</u>

Marking Guide**Marks**

a.	1 mark for each correct reason (maximum of 5 reasons)	5
b.	Adjusted cash book including headings	
	eight entries @ 1mark	8
	Correct Heading	1
	Balance per adjusted cash book	1
	Unpresented cheques	1½
	Sub total figure	1
	Uncredited cheques	1½
	Balance per bank statement	<u>1</u>
		7
		<hr/>
	Total marks	20
		<hr/>

EXAMINER'S REPORT

Candidates are required to prepare bank reconciliation statement after adjusting the cash book and state reasons why bank balance could differ from cash book balance.

About 90% of the candidates attempted the question and performance was above average. Few candidates could not prepare adjusted cash book correctly while some could not present the bank reconciliation statement in the standard format.

Candidates are advised to gain understanding of the principles of preparation of bank reconciliation from the ICAN study pack and practise with relevant past question.

SOLUTION 3

a(i).

AJANAKU ENTERPRISES

Determination of Depreciation Rate using the Reducing Balance Method

$$\begin{aligned}\text{Dep. Rate (r)} &= \left[1 - \sqrt[n]{\frac{s}{c}}\right] \times 100\% \\ &= \left[1 - \sqrt[4]{\frac{50,000}{1,850,000}}\right] \times 100\% \\ &= \underline{59.45\%}\end{aligned}$$

Computation of Depreciation charge and Carrying amount using the reducing balance method

Date	Details	Amount ₦
1/1/2013	Cost	1,850,000
12/31/2013	Depreciation charged at 59.45% of 1,850,000	1,099,825
12/31/2013	Carrying Amount	750,175
12/31/2014	Depreciation charged at 59.45% of 750,175	445,979
12/31/2014	Carrying Amount	304,196

OR

Depreciation rate:

$$r = 1 - \sqrt[n]{\frac{s}{c}} \times \frac{100}{1}\%$$

where r = rate of depreciation

n= expected useful life in years = 4 years

s = estimated scrap value = ₦50,000

c = cost of asset = ₦1,850,000

$$\begin{aligned}\therefore r &= 1 - \sqrt[4]{\frac{50,000}{1,850,000}} \times \frac{100}{1}\% \\ &= (1 - 0.0405) \times 100\% = 59.5\%\end{aligned}$$

ii. Calculation of Depreciation and carrying amount

	₦
Cost	1,850,000
Depreciation of year to 31/12/2013	<u>(1,100,750)</u>
Carrying amount 31/12/2013	749,250
Depreciation for year to 31/12/2014	<u>(445,804)</u>
Carrying amount 31/12/2014	<u>303,446</u>

b. LEXUS ENTERPRISES

Capital Account

Date	Particular	₦	Date	Particular	₦
31/3/2014	Balance c/d	<u>250,000</u>	1/1/2014	Bank	<u>250,000</u>
			4/1/2014	Balance b/d	250,000

Bank Account

Date	Particular	₦	Date	Particular	₦
1/1/2014	Capital	250,000	15/1/2014	Office stationery	1,000
			28/1/2014	Purchases	25,000
			2/2/2014	Adam Enterprises	35,000
			3/2/2014	Rent of business premises	30,000
			8/3/2014	Office stationery	500
			31/3/2014	Balance c/d	<u>158,500</u>
		<u>250,000</u>			<u>250,00</u>
4/1/2014	Balance b/d	158,500			

Furniture Account

Date	Particular	₦	Date	Particular	₦
5/1/2014	Adam Enterprises	<u>50,000</u>	31/3/2014	Balance c/d	<u>50,000</u>
4/1/2014	Balance b/d	50,000			

Other Payables - Adam Enterprises Account

Date	Particular	₦	Date	Particular	₦
2/2/2014	Adam Enterprises	35,000	5/1/2014	Furniture	50,000
31/3/2014	Balance c/d	<u>15,000</u>			
		<u>50,000</u>			<u>50,000</u>
			4/1/2014	Balance b/d	<u>15,000</u>

Office Stationery Account

Date	Particular	₦	Date	Particular	₦
1/15/2014	Bank	1,000			
3/8/2014	Bank	<u>500</u>	3/31/2014	Balance c/d	<u>1,500</u>
		<u>1,500</u>			<u>1,500</u>
4/1/2014	Balance b/d	1,500			

Purchases Account

Date	Particular	₦	Date	Particular	₦
28/1/2014	Bank	25,000			
3/5/2014	Jay Enterprises	<u>35,000</u>	3/31/2014	Balance c/d	<u>60,000</u>
		<u>60,000</u>			<u>60,000</u>
4/1/2014	Balance b/d	60,000			

Trade Payables - Jay Enterprises Account

Date	Particular	₦	Date	Particular	₦
3/31/2014	Balance c/d	<u>35,000</u>	5/3/2014	Purchases	<u>35,000</u>
				Bal b/d	35,000

Rent Account

Date	Particular	₦	Date	Particular	₦
2/3/2014	Bank	<u>30,000</u>	3/31/2014	Balance c/d	<u>30,000</u>
1/4/2014	b/d	30,000			

Marking guide		Marks
Ai	Depreciation rate	
	1 mark for correct formular	1
	1 mark for correct workings and evaluation of formular	1
li	Calculation of Depreciation for 2013 and 2014 with carrying amount of the asset at end of 2014 six correct entries including Heading @ ^{1/2} mark	3
b.	Posting of the transaction into relevant ledgers and balancing the accounts	
	- Correct heading - 1entry @ ^{1/2} mark	^{1/2}
	- Capital Account - 2 entries @ ^{1/2} mark	1
	- Bank Account - 8 entries @ ^{1/2} mark	4
	- Furniture - 2 entries @ ^{1/2} mark	1
	- Other payables - 4 entries @ ^{1/2} mark	2
	- Office Stationery - 4 entries @ ^{1/2} mark	2
	- Purchases Account – 5 entries @ ^{1/2} mark	2½
	- Trade Payables - 2 entries @ ^{1/2} mark	1
	- Rent - 2 entries @ ^{1/2} mark	<u>1</u>
	Total marks	<u>20</u>

EXAMINER'S REPORT

The question tests candidates' knowledge of determination of depreciation rate, using the reducing balance method and calculation of depreciation and carrying amount of an asset. Candidates are also required to post transactions into relevant ledger accounts.

About 90% of the candidates attempted the question. Performance was below average in part (a) of the question involving determination of depreciation rate and amount while performance in part (b) of the question involving posting of transactions into relevant ledger accounts was above average.

Most candidates could not determine depreciation rate and carrying amount correctly as a result of lack of knowledge of the applicable formula and its interpretation.

Candidates are advised to familiarise themselves with applicable formula for computing depreciation rate and carrying amount of assets to enhance their chances of performing better on this topic in future examinations.

SOLUTION 4

a

JONAK NIG. LTD
Equipment-Calculation of Acquisition Cost

	N
Cost of equipment	3,000,000
Transport cost	100,000
Installation cost	150,000
Hospitality cost during installation	25,000
Repair cost prior to use	65,000
Total Acquisition Cost of the Equipment	3,340,000

b. **MEMORY NIGERIA LIMITED**

Journal Entries recording issue of shares transaction.

Date	Particulars	DR. N'000	CR. N'000
Dec. 29	Bank Account Application Amount received on application for 120,000,000 shares with excess of N12,000,000 transferred to allotment	36,000	36,000
Dec. 29	Application and Allotment Account Ordinary shares Being the nominal value of shares recognised on application for shares	24,000	24,000
Jan. 1	Allotment Ordinary shares Share Premium Ordinary share capital & Share premium recognised on allotment of shares	36,000	20,000 16,000
Jan. 4	Bank Application Allotment Amount received on allotment of 80,000,000 shares with the balance of N12,000,000 transferred from application account	24,000 12,000	36,000

Feb 1.	First call Ordinary shares Being amount due on 80 million ordinary shares for first call	16,000	16,000
Feb. 3	Bank Account First Call Account Being amount received on first call	16,000	16,000
May. 1	Final Call Account Ordinary Share Capital Being amount due on Second Call & final call for 80,000,000 ordinary shares at 25k	20,000	20,000
May. 3	Bank Account Final Call Account Being amount due on final call, received	20,000	20,000

Workings	₦'000
1. Amount received on application 30k x 120m	36,000
Amount due 30k x 80 million	<u>24,000</u>
Excess amount transferred to Allotment	<u>12,000</u>
2. Amount due on allotment 2/3 x 120m x 45k	36,000
Amount transferred from application	<u>(12,000)</u>
Balance received	<u>24,000</u>
3. Issued Price: 30k+45K+20K+25K = 120K	
Nominal value	<u>100K</u>
Premium per share	<u>20K</u>
Hence allotment	₦'000
Share premium = 20K x 80m =	16,000
Nominal value = 25k x 80m =	<u>20,000</u>
Total amount due on allotment =	<u>36,000</u>

- c. **Authorized Share Capital** is the nominal value of the maximum number of shares a company can have in issue at any particular point in time and it is stated in the Memorandum of Association of the company. It must be stated in units and value.

Called –up share capital is the amount of the nominal value paid by the shareholders plus further amount they have agreed to pay in future.

Marking Guide	Marks
a. 2 Correct entries @ ½ mark	1
5 correct entries @ ½ mark	2½
Correct total acquisition cost	<u>1½</u>
	5
b. Journal entries including narration and workings (33 entries @ 1/3 per entry)	11
c. Difference between authorised and called up share capital:	
Definition of Authorised share capital	2
Definition of Called-up share capital	<u>2</u>
Total marks	<u>20</u>

EXAMINER'S REPORT

The question tests candidates' understanding of elements of acquisition costs of equipment and the journal entries required to record the issue of shares. Only 20% of the candidates attempted the question and performance was below average.

The following weaknesses were observed as responsible for the poor performance of Candidates:

- (i) Inability to Journalise transactions
- (ii) Inability to determine the share premium
- (iii) Inability to relate the excess amount received during application with the amount due during allotment.

Candidates are advised to imbibe the culture of preparing journal entries in addition to good understanding of preparation of ledger accounts.

Solution 5

- a. An intangible non-current asset is an identifiable non-monetary asset without physical substance, separable from the company or arising from contractual and other legal rights.

Examples of intangible assets are development costs, goodwill, trade marks, licenses, patents, copyrights, franchise, etc

b. **BIGGY, SMALLIE AND FANNY**

Statement of profit distribution for the year ended December 31, 2014

	₦	₦
Profit before adjustments		347,000
Add:		
Interest on Current account		
Balance (Dr) Smallie (5% x 60,000)		3,000
		<u>350,000</u>
Less:		
Commission to Fanny		(30,000)
Profit available for distribution		<u>320,000</u>
Shared as follows:		
Biggy = $\frac{2}{5} \times 320,000$	128,000	
Smallie = $\frac{2}{5} \times 320,000$	128,000	
Fanny = $\frac{1}{5} \times 320,000$	<u>64,000</u>	
		<u>320,000</u>
		<u>-</u>

d. **MBOBO LIMITED**

Account Receivable Ledger Control Account

	₦		₦
Balance b/d	115,440	Accounts payable ledger	
		Control	700
		Corrected balance	<u>114,740</u>
	<u>115,440</u>		<u>115,440</u>

Reconciliation of account receivable ledger control account with the total balances in the accounts receivable ledger

	N
Account Receivable Ledger debit balances	116,374
Account receivable ledger credit balances	<u>(1,234)</u>
	115,140
Contra entry, entered in receivables ledger	(700)
Misposting of sales to account payables	600
Allowances granted	<u>300</u>
	<u>114,740</u>

Suspense account

	N		N
Balance b/d	3,310	Bank balance error (2x 1700	3,400
Insurance account	90	Cash account (345-245)	100
Trade payable to be settled (800-700)	<u>100</u>		
	<u>3,500</u>		<u>3,500</u>

Marking Guide

Marks

a. Correct definition of intangible non-current Assets	1
One correct example	1
b. Statement of sharing of profit & correct entries @ 1 mark	8
c. Reconciliation of accounts receivable ledger control and Ledger balances. 8 correct entries including heading @ 1 mark	8
ii. Suspense account	
Any 8 correct entries including working @ ¼	<u>2</u>
Total marks	<u>20</u>

EXAMINER'S REPORT

The question tests the definition of intangible assets, computation of distribution of profit among partners and reconciliation of account receivable ledger control balance with the accounts receivable ledger balances.

About 50% of the candidates attempted the question and performance was below average.

Only few candidates defined intangible assets correctly but they were able to give a correct example. The requirements to distribute profits was interpreted wrongly by candidates. Some of them calculated interest on current account balances as against required interest on only debit balances. Moreover goodwill was included as part of the profit for the period. Candidates deviated totally from the requirement to prepare reconciliation of receivables ledger and receivable ledger control accounts.

Candidates are advised to pay attention to every part of the syllabus, read the study text thoroughly and practice many examination type questions.

SOLUTION 6

a) i) The cash basis of accounting means that the effects of transactions and events are recognised when cash or its equivalent is received or paid. In other words, income is recognised when cash is received and expenses are recognised when they are paid, It is not used for the preparation of financial statements except statement of cashflows.

ii) The accrual basis of accounting means that the effects of transactions and other events are recognised as they occur and not as cash or its equivalent is received or paid.

This is the basis for recognising transactions and other events in the financial statements. It dictates the period in which transactions should be incorporated in the financial statements.

iii) Break-up basis of accounting is the basis in which the net asset value of a business is computed, when it is assumed the going concern basis of the entity is in doubt. The assets are priced individually at their forced sales value rather than at their fair value or cost.

aii) Set-back associated with cash basis of accounting includes the following:

- i. It does not match cost with revenue hence profits may be distorted.
- ii. Unearned income and liability accounts are not reported; hence statement of financial position may not reflect all monies due or owing.
- iii. It does not show income that has not been invoiced or received.
- iv. It does not allow for tracking the actual sales and purchases.
- v. It does not report the effect of non-current assets utilisation made by organisations as it ignores depreciation effect on such assets.

b) OLUYEMI VENTURES

Calculation of rent to be recognised to year ended March 31, 2014

	₦'000
Rent paid in advance:	
1 Jan-31 March 2013 <u>N600000</u>	
4	<u>150,000</u>
1 April -30 June 2013 <u>N600000</u>	
4	150,000
1 July -31 March 2014 <u>N9,0000 x 3</u>	
4	<u>675,000</u>
(i) recognised in the statement of profit or loss for the year ended 31 March 2014	<u>825,000</u>
(ii) Amount to be recognised in the statement of financial position as at 31 March, 2014. <u>N90000</u>	
4	<u>225,000</u>

c).

Rental Income Account

	₦'000		₦'000
31 Dec. 2013 bal b/f	440	31 Dec. 2013 bal b/f	250
Uncollected rent written off	35	Bank	2,550
31 Dec. 2014 statement of profit & loss	2,195		
31 Dec. 2014 bal c/f	<u>480</u>	31 Dec 2014 bal c/f	<u>350</u>
	<u>3,150</u>		<u>3,150</u>

	Marking Guide	Marks
ai.	Differentiate between Cash accrual & break up basis	
	Cash basis –definition	1
	- Application	1
	Accrual basis – definition	1
	- Application	1
	Break-up – Definition	1
	- Application	<u>1</u>
		6
li	Set-back of Cash basis	2
bi.	Rent in statement of profit or loss:	
	6 correct entries @ ½ mark	3
li	Rent in statement of financial position 2 correct entries @ ½ mark	1
c.	Rental income account	
	8 correct entries @ 1 mark	<u>8</u>
	Total marks	<u>20</u>

EXAMINER'S REPORT

The question tests candidates' understanding of the cash, accrual and break- up basis and the determination of adjustment for prepaid and accrued rents and the rental income.

Performance was average. Some candidates performed well in the determination of rent expense and rental Income for the period while others could not differentiate among the cash, accruals and break-up basis.

Candidates are advised to pay attention to the various accounting concepts and IFRSs specified in the curriculum.

MANAGEMENT INFORMATION

Time Allowed: 3 hours

SECTION A: MULTIPLE-CHOICE QUESTIONS (20 Marks)

ANSWER ALL QUESTIONS IN THIS SECTION

Write **ONLY** the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/statements.

1. A situation where budgeted revenues are intentionally under-estimated or budgeted costs are intentionally over-estimated is known as:
 - A. Participatory budget
 - B. Surplus budget
 - C. Budget slack
 - D. Deficit budget
 - E. Imposed budget
2. Which of the following information may **NOT** be found in an Employee Time Sheet?
 - A. Department
 - B. Employee name
 - C. Employee ID No
 - D. Supervisor's signature
 - E. Contract agreement date
3. An amount paid as remuneration to an employee over and above the basic wage is known as
 - A. Overtime
 - B. Incentive
 - C. Bonus
 - D. Salaries
 - E. Leave allowance
4. An organisation may **NOT** hold inventory in order to
 - A. Meet regular demands
 - B. Even out seasonal variation in demand
 - C. Act as buffer when higher demand is expected
 - D. Meet technical requirements of a production system
 - E. Take advantage of bulk purchase discounts

5. A company manufactures and sells a single product. During the month of November 2014, the budgeted total production cost was ₦210,000 including budgeted fixed production overheads of ₦55,000. Budgeted sales was 8,750 units at ₦30.

If the company applies marginal costing principles, what would be the budgeted contribution for the month?

- A. ₦ 52,500
 - B. ₦ 77,500
 - C. ₦ 97,500
 - D. ₦107,500
 - E. ₦117,500
6. The Management of Tejuosho Shopping Mall incurred a certain amount of money as joint security cost for the month of October 2014. What will be the most appropriate basis of apportioning this cost amongst the individual shop owners in the mall?
- A. Value of inventory held in each store/shop
 - B. Cost of equipment in each shop
 - C. Number of workers in each shop
 - D. Floor area occupied by each shop
 - E. Turnover recorded by each shop
7. Use the high-low method to calculate the Fixed Cost (FC) and Variable Cost (VC) elements of the following costs:

Month	Activity	₦
January	600	1,700
February	800	1,900
March	650	1,750
April	850	1,950
May	900	2,100
June	1,350	2,300

- A. VC = ₦0.08/unit, FC = ₦1120/unit
 - B. VC = ₦0.88/unit, FC = ₦1020/unit
 - C. VC = ₦0.80/unit, FC = ₦1220/unit
 - D. VC = ₦0.82/unit, FC = ₦1320/unit
 - E. VC = ₦0.85/unit, FC = ₦1330/unit
8. Which of the following information would **NOT** be contained in a standard store ledger card?
- A. Description of the item
 - B. Minimum inventory level
 - C. Re-order quantity
 - D. Supplier's address
 - E. Pricing method

9. XYZ is a chemical processing company with 25,000kg input materials. The company has a normal loss of 10% and an abnormal loss of 750kg. What quantity of good production will be achieved in kg?
- A. 24,250
 - B. 23,250
 - C. 22,500
 - D. 21,750
 - E. 20,750

Use the following information to answer questions 10 and 11:

	₦
Sales	650,000
Variable costs	390,000
Total fixed costs	120,000

10. What is the contribution/sales ratio?
- A. 400%
 - B. 48%
 - C. 40%
 - D. 24%
 - E. 4%
11. What is the break-even sales in value?
- A. ₦120,000
 - B. ₦140,000
 - C. ₦255,000
 - D. ₦300,000
 - E. ₦650,000
12. The following are functional budgets **EXCEPT**
- A. Distribution cost budget
 - B. Production budget
 - C. Sales budget
 - D. Material purchase budget
 - E. Cash budget
13. An enterprise system is also known as
- A. Enterprise Resource Programming
 - B. Enterprise Resource Planning
 - C. Enterprise Resource Programmer
 - D. Enterprise Resource Planner
 - E. Entity Resource Planning

14. A software tool that can be used to capture and apply both knowledge and expertise is called
- A. Knowledge capture system
 - B. Knowledge expertise system
 - C. Knowledge management system
 - D. Knowledge based system
 - E. Knowledge data system
15. A program that attaches itself to other programs in order to replicate and cause havoc on the attached programs is called
- A. Trojan horse
 - B. Worms
 - C. Worm
 - D. Virus
 - E. Trojan horses
16. Strategic issues and long-term trends are handled by
- A. Software system developers
 - B. Hardware system developers
 - C. Senior management
 - D. Middle management
 - E. System analysts
17. Which of the following is **NOT** a component of Accounting Information System (AIS)?
- A. Humanware
 - B. Software
 - C. Information Technology Infrastructure
 - D. Office structure
 - E. Internal control and security measures
18. Which of the following is **NOT** a means by which information can improve decision making?
- A. Increasing information overload
 - B. Reducing uncertainty
 - C. Providing feedback about the effectiveness of prior decisions
 - D. Identifying situations requiring management action
 - E. Improving the timing of information
19. The possible career paths for a Chartered Accountant in a computer-based industry include the following **EXCEPT**
- A. System Analyst
 - B. Computer Manufacturer
 - C. Computer Programmer
 - D. Web Designer
 - E. Database Administrator

20. Which of the following is **NOT** true of Directional Alignment between IT Strategy and Business Strategy?
- A. The alignment must consider all of the organisation business functions
 - B. It must consider the related importance of data on assets throughout the enterprise
 - C. Alignment causes an organisation to incur costs that may not be necessary to the business needs
 - D. An organisation can transform technology into business service functions by aligning existing architecture and project portfolios with business needs
 - E. The cost of not having a directional alignment can be stated through direct costs to the technology environment.

SECTION B: ANSWER ANY FOUR OUT OF SIX QUESTIONS IN THIS SECTION (80 Marks)

QUESTION 1

XYZ Limited has just designed a new consumer product – XEE, which is expected to have a ten-year life cycle. Based on its market research, XYZ Limited's Management has determined that the new product should be packaged in a 5kg-polymer sack with a selling price of ₦150 in the first four years, ₦120 in the next four years and ₦90 per unit during the last two years.

Sales in unit are expected as follows:

Year	Units
1	400,000
2	500,000
3	600,000
4	800,000
5	1,000,000
6	1,200,000
7	900,000
8	600,000
9	500,000
10	300,000

Variable selling costs are expected to be ₦10 per package throughout the product's life. Annual fixed selling and administrative costs are estimated to be ₦1,200,000. XYZ Limited's management desires a 25% profit margin on selling price.

Required:

- a. Compute the life cycle target cost of manufacturing the product (round up to the nearest kobo). (14 Marks)
 - b. If XYZ Limited anticipated that the new product will cost ₦90.50 per unit to manufacture in the first year, what are the maximum manufacturing costs in the following nine years? (3 Marks)
 - c. Suppose that the outcome of the market research indicates that expected manufacturing cost per unit over the product life cycle is ₦89.90, what actions would the company take to reduce this cost? (3 Marks)
- (Total 20 Marks)**

QUESTION 2

ABC Limited is engaged in the production of AiBiCi product and the following data were extracted from the Budget Committee's Report:

- i. Sales is expected to be 20,000 units each in months 1 and 2, this will increase by 10% each in months 3 and 4, 5% each in months 5 and 6.
- ii. Unit selling price is currently estimated at ₦250 and due to increased awareness, the price will move up to ₦300 in the fourth month.
- iii. To produce one unit of AiBiCi, the following materials are required:
 - 2kgs of A @ ₦20/kg
 - 5kgs of B @ ₦5/kg
 - 2kgs of C @ ₦10/kg
- iv. The Company keeps 10% of estimated sales as closing inventory for the month. Assume no opening inventory for month 1.

You are required to compile, in tabular form, the following functional budgets for the next 6 months:

- a. Sales in quantity and value. (6 Marks)
 - b. Production in quantity. (6 Marks)
 - c. Material purchase in quantity and the total cost. (8 Marks)
- (Total 20 Marks)**

QUESTION 3

A company located in Ijora area of Lagos extracted the following figures from its materials analysis sheet:

Date	Transaction	Quantity	Unit price (₦)
1 st January	Balance b/f	10,000	50
25 th January	Receipt	7,000	55
6 th February	Issue	14,000	
3 rd March	Receipt	5,000	60
27 th March	Receipt	4,500	62
4 th June	Issue	7,500	
24 th June	Issue	2,500	
30 th June	Receipt	6,500	65

You are required to record the above transactions in the inventory ledger and determine the value of the inventory balance at the end of June 2015 using

- a. First-in-First-out pricing method. (10 Marks)
 - b. Weighted average pricing method. (10 Marks)
- (Total 20 Marks)**

QUESTION 4

- a. 'A well designed Accounting Information System normally adds VALUES to an organisation.'

Required:

- i. Enumerate **FOUR** of these values. (4 Marks)
 - ii. State **FIVE** uses of Accounting Information System and explain each briefly. (10 Marks)
- b. State and describe briefly **THREE** main methods of monitoring performance in an IT based organisation. (6 Marks)
- (Total 20 Marks)**

QUESTION 5

- a. Define an Information System. (2 Marks)
 - b. Explain **FOUR** functions of Executive Support System. (8 Marks)
 - c. Explain briefly the following:
 - i. Transaction Processing System (TPS). (5 Marks)
 - ii. Decision Support System (DSS). (5 Marks)
- (Total 20 Marks)**

QUESTION 6

- a. In a computer environment, it is a common occurrence that data is lost, manipulated or tampered with by unauthorised individuals for selfish reasons.

Required:

Enumerate **FOUR** areas where computers are used as instrument of crime and **FOUR** areas as target of crime. (8 Marks)

- b. The following information was extracted from the books of LAHA

Limited:

	Product P (units)	Product Q (units)
November	1,500	2,000
December	2,000	3,000
January	1,000	2,000
February	2,000	3,000
March	3,000	4,000

Product P is sold for ₦200 per unit, and Product Q for ₦300 per unit. All sales are on credit. 20% of total sales are received in the month of sale, 40% in the following month and the remaining balance (excluding bad debts) are received at the end of the second month.

Bad debts are 2% of total sales and are written off at the end of the second month following sale.

Required:

Calculate the cash receipts expected in January, February and March.

(12 Marks)
(Total 20 Marks)

SOLUTIONS

SECTION A: PART 1

MULTIPLE CHOICE SOLUTIONS

1. C
2. E
3. C
4. D
5. D
6. D
7. C
8. D
9. D
10. C
11. D
12. E
13. B
14. C
15. B
16. C
17. D
18. A
19. B
20. C

Workings

5.

		₦
Total Production Cost	=	210,000
Less: Budgeted Fixed Cost	=	55,000
Variable Production Cost	=	<u>155,000</u>
Value of Contribution:		₦
Budgeted Total Sales - (N8,750x N30/ <i>units</i>)	=	262,500
Less: Budgeted Variable Cost	=	<u>155,000</u>
Contribution	=	<u><u>107,500</u></u>

7.

High and Low Method

	Activity	₦
High	1,350	2,300
Low	600	1,700
	<u>750</u>	<u>600</u>

$$\text{Variable Cost/Unit} = \frac{\text{₦ } 600}{750} = \text{₦ } 0.80 \text{ units}$$

For: Fixed Cost,

let $Y = a + bx$

Where: Y = Total Cost

a = Fixed Cost

b = Variable Cost

x = Number of Units

$$\therefore \text{₦ } 1,700 = a + (\text{₦ } 0.80 \times 600)$$

$$= a + \text{₦ } 480$$

$$\text{i.e. } a = \text{₦ } 1,700 - \text{₦ } 480$$

$$= \underline{\underline{\text{₦ } 1,220}}$$

9. Input = 25,000kg

Normal loss = 10%

$$\text{i.e. } \frac{10}{100} \times 25,000 \text{ kgs} = 2,500 \text{ kg}$$

$$\therefore \text{Expected good output} = \text{Input} - \text{Normal loss}$$

$$= 25,000 \text{ kg} - 2,500 \text{ kg} = 22,500 \text{ kg}$$

$$\text{Less Abnormal Loss} = \underline{750 \text{ kg}}$$

$$\text{Good Production} = \underline{\underline{21,750 \text{ kg}}}$$

10. Computation of Contribution/Sales ratio

	₦
Sales	650,000
Less: Variable Cost	<u>390,000</u>
Total Contribution	<u><u>260,000</u></u>

$$\begin{aligned} \text{Contribution/Sales ratio} &= \frac{260,000}{650,000} \times \frac{100}{1} \\ &= \underline{\underline{40\%}} \end{aligned}$$

$$\begin{aligned} 11. \quad \text{BEP Sales in Value} &= \frac{\text{Fixed Cost}}{\text{Contribution Margin Ratio}} \\ &= \frac{120,000}{0.4} \\ &= \underline{\underline{\text{₦ } 300,000}} \end{aligned}$$

EXAMINER'S REPORT

These are multi-choice questions which test various parts of the syllabus.

All the candidates attempted these questions.

Performance was very good as about 70% of the candidates who attempted the questions scored more than half of the marks obtainable.

For improved performance in future, candidates are enjoined to completely master the contents of the syllabus.

SOLUTION 1

(a)

XYZ LIMITED DETERMINATION OF SALES VALUE

Year	Expected Sales (₹)	Unit Price (₹)	Value (₹)
1	400,000	150	60,000,000
2	500,000	150	75,000,000
3	600,000	150	90,000,000
4	800,000	150	120,000,000
5	1,000,000	120	120,000,000
6	1,200,000	120	144,000,000
7	900,000	120	108,000,000
8	600,000	120	72,000,000
9	500,000	90	45,000,000
10	300,000	90	27,000,000
	<u>6,800,000</u>		<u>861,000,000</u>

$$\text{Average Unit Manufacturing Cost} = \frac{\text{Target Manufacturing Cost}}{\text{Total Quantity}}$$

$$= \frac{\text{₹ } 565,750,000}{6,800,000}$$

$$= \underline{\underline{\text{₹ } 83.20}}$$

XYZ LIMITED
DETERMINATION OF TARGET COST

YEAR	REVENUE	TARGET PROFIT	TOTAL TARGET COST	VARIABLE OVERHEADS	FIXED COSTS	TARGET MANUF COST
	A	B	C = (A – B)	D	E	F = (C – D – E)
1	60,000,000	15,000,000	45,000,000	4,000,000	1,200,000	39,800,000
2	75,000,000	18,750,000	56,250,000	5,000,000	1,200,000	50,050,000
3	90,000,000	22,500,000	67,500,000	6,000,000	1,200,000	60,300,000
4	120,000,000	30,000,000	90,000,000	8,000,000	1,200,000	80,800,000
5	120,000,000	30,000,000	90,000,000	10,000,000	1,200,000	78,800,000
6	144,000,000	36,000,000	108,000,000	12,000,000	1,200,000	94,800,000
7	108,000,000	27,000,000	81,000,000	9,000,000	1,200,000	70,800,000
8	72,000,000	18,000,000	54,000,000	6,000,000	1,200,000	46,800,000
9	45,000,000	11,250,000	33,750,000	5,000,000	1,200,000	27,550,000
10	27,000,000	6,750,000	20,250,000	3,000,000	1,200,000	16,050,000
TOTAL	861,000,000	215,250,000	645,750,000	68,000,000	12,000,000	565,750,000

(b) Total Cost over Product Life Cycle

$$= 6,800,000 \times \text{N}83.20 = \text{N}565,760,000$$

Expected Total Production in first year

$$= 400,000 \times \text{N}90.50 = \text{N}36,200.00$$

Available Unit Cost in the following nine years

$$= \frac{\text{N}(565,760,000 - 36,200,000)}{(6,800,000 - 400,000)}$$

$$= \text{N}82.74$$

(c) The following actions are potential options for XYZ Limited:

- i. Product design and/or production process can be changed to reduce cost.
- ii. The 25% acceptable profit margin can be reduced.
- iii. Suspend the consideration of the project at the present time.

MARKING GUIDE

		MARKS
(a)	Heading (2 ticks– ½ mark each)	1
	Determination of Sales Values (11 ticks – ½ mark each)	5½
	Determination of Target Cost (11 ticks– ½ mark each)	5½
	Computation of Average Cost (1 tick – 1 mark)	1
	Computation of Target Profit (1 tick – 1 mark)	1
		14
(b)	Determination of New Cost for 1 st Year (1 tick – 1 mark)	1
	Computation of difference from (a) (1 tick – 1 mark)	1
	Computation of Years 2 – 10 Costs (1 tick – 1 mark)	1
		3
(c)	Three (3) possible action – 1 mark each	3
		3
		<u>20</u>

EXAMINER'S REPORT

The question tests candidates' understanding of and ability to compute life cycle target costs and revenues under different scenarios of planned levels of activity.

The question was not popular among candidates as only about 20% of the entire candidates attempted the question.

Performance was very poor as only about 5% of the candidates who attempted the question scored up to half of the marks allocated for the question.

Common mistakes which contributed to the poor performance included the following:

- i. Exhibition of a high level of ignorance of the topic;
- ii. Inability of the candidates to recognize and identify actions desired to reduce costs; and
- iii. Poor arithmetic.

Candidates will do well in future if they

- (i) Improve on the coverage of the entire syllabus;
- (ii) Spend more productive time to prepare;
- (iii) Try to understand the requirements of a question before commencing to answer;
- (iv) Improve on presentation of their answers;
- (v) Acquaint themselves with good quality texts including the ICAN Study texts and Pathfinders.

SOLUTION 2

**ABC LIMITED
SALES BUDGET**

Month	Quantity	Unit Price	Value (N)
1	20,000	250	5,000,000
2	20,000	250	5,000,000
3	22,000	250	5,500,000
4	22,000	300	6,600,000
5	23,100	300	6,930,000
6	23,100	300	6,930,000

**ABC LIMITED
PRODUCTION QUANTITY BUDGET**

Month	Sales	Closing Stock	Opening Stock	Production Required
1	20,000	2,000	-	22,000
2	20,000	2,000	2,000	20,000
3	22,000	2,200	2,000	22,200
4	22,000	2,200	2,200	22,000
5	23,100	2,310	2,200	23,210
6	23,100	2,310	2,310	23,100

**ABC LIMITED
MATERIAL PURCHASE BUDGET**

Month	Production Required (units)	Material A (kg)	Material B (kg)	Material C (kg)
1	22,000	44,000	110,000	44,000
2	20,000	40,000	100,000	40,000
3	22,200	44,400	111,000	44,400
4	22,000	44,000	110,000	44,000
5	23,210	46,420	116,050	46,420
6	23,100	46,200	115,500	46,200
		265,020	662,550	265,020
		@ ₦20	@ ₦5	@ ₦10
	Value	₦5,300,400	₦3,312,750	₦2,650,200
	Total Value		<u>₦11,263,350</u>	

MARKING GUIDE

		MARKS
(a)	Computation of Sales Quantities (6 ticks – 1 mark each)	3
	Computation of Sales Values (6 ticks – ½ mark each))	3
		6
(b)	Computation of Opening Stock (6 ticks – ¼ mark each)	1½
	Computation of Closing Stock (6 ticks – ¼ mark each)	1½
	Computation of Production Quantities (6 ticks – ½ mark each)	3
		6
(c)	Computation of Purchase Quantities (18 ticks – ⅓ mark each)	6
	Computation of Purchase Values (4 ticks – ½ mark each)	2
		8
		20

EXAMINER'S REPORT

This question tests candidates' ability to prepare simple functional budgets including those of Sales, Production and Purchases.

About 75% of the entire Candidates attempted this question.

Performance was fairly good as about 55% of the candidates who attempted the question scored more than half of the marks obtainable.

The common pitfalls displayed by the candidates included the following:

- (i) Insufficient knowledge of functional budgets;
- (ii) Poor arithmetic
- (iii) Poor interpretation of the requirements of the question
- (iv) Poor presentation.

It is expected that candidates' performance in future examinations will be better if they

- i) Vary the texts used to include ICAN Study texts and the Pathfinders;
- ii) Spend more quality time in preparing for this examination.

SOLUTION 3

**STOCK VALUATION
AS AT 30 JUNE 2015
USING FIRST-IN-FIRST-OUT (FIFO) METHOD**

(a) Using FIFO

Date	Receipt			Issues			Balance	
	Qty.	Unit Price (N)	Value (N)	Qty.	Unit Price (N)	Value (N)	Qty	Value (N)
1 Jan	10,000	50	500,000				10,000	500,000
25 Jan	7,000	55	385,000				17,000	885,000
6 Feb				10,000	50	500,000		
				<u>4,000</u>	55	<u>220,000</u>		
				14,000		720,000	3,000	165,000
3 Mar	5,000	60	300,000				8,000	465,000
27 Mar	4,500	62	279,000				12,500	744,000
4 Jun				3,000	55	165,000		
				<u>4,500</u>	60	<u>270,000</u>		
				7,500		435,000	5,000	309,000
24 Jun				500	60	30,000		
				<u>2,000</u>	62	<u>124,000</u>		
				2,500		154,000	2,500	155,000
30 Jun	6,500	65	422,500				9,000	577,500

Closing Stock: Quantity = 9,000 Value = N577,500

(b) Using Weighted Average

Date	Receipt			Issues			Balance		
	Qty.	Unit Price (N)	Cost (N)	Qty.	Unit Price (N)	Cost (N)	Qty	Weighted Average Price (N)	Value (N)
1 Jan	Opening Stock						10,000	50.00	500,000
25 Jan	7,000	55	385,000				17,000	52.06	885,000
6 Feb				14,000	52.06	728,824	3,000	52.06	156,176
3 Mar	5,000	60	300,000				8,000	57.02	456,176
27 Mar	4,500	62	279,000				12,500	58.81	735,176
4 Jun				7,500	58.81	441,106	5,000	58.81	294,070
24 Jun				2,500	58.81	147,035	2,500	58.81	147,035
30 Jun	6,500	65	422,500				9,000	63.28	569,535

Closing Stock: Quantity = 9,000 Value = N569,535

MARKING GUIDE

			MARKS
(a)	Correct format (4 ticks – $\frac{1}{4}$ mark each)	1	
	Computation of Receipts and Issues (8 ticks – $\frac{1}{2}$ mark each)	4	
	Computation of Running Balances (8 ticks – $\frac{1}{2}$ mark each)	4	
	Determination of Closing Stock Value (1 tick – 1 mark)	1	
			10
(b)	Correct format (4 ticks – $\frac{1}{4}$ mark each)	1	
	Computation of Price of Issues (8 ticks – $\frac{1}{2}$ mark each)	4	
	Computation of Running Balances (8 ticks – $\frac{1}{2}$ mark each)	4	
	Determination of Closing Stock Value (1 tick – 1 mark)	1	
			10
			20

EXAMINER'S REPORT

The question tests candidates' understanding and mastery of stock valuation methods with particular reference to two methods of First-In-First-Out (FIFO) and Weighted Average (WA).

Virtually all the candidates attempted this question.

Performance was very good as more than half of the candidates scored 80% and above of the marks obtainable.

Candidates' who didn't do well exhibited:

- i) Inadequate knowledge of the topic;
- ii) Poor presentation;
- iii) Bad arithmetic.

For improved performance in future, it is recommended that candidates should:

- i. Study hard; and
- ii. Identify and use good quality texts.

SOLUTION 4

- a. (i) Values of Accounting Information Systems include:
- Improving quality and reducing the costs of products or services and hence profit is enhanced;
 - Improving efficiency by providing more timely information for effective decision-making;
 - Sharing knowledge and expertise thereby improving operations and providing competitive advantage
 - Improving efficiency and effectiveness of its supply chain, hence giving more economic value to business entities
 - Improving the internal control structure and assuring privacy
 - Improving decision making
 - Enhancing standards
- (ii) Uses of Accounting Information Systems include:
- Producing External Reports
 - Supporting Routine Activities
 - Decision Support
 - Planning and Control of all activities
 - Implementing Internal Control
 - Monitoring Performance

Explanation

- **Producing External Reports**
This is to satisfy the needs of investors, creditors, tax collectors, regulatory agencies and other stakeholders such as employees and prospective investors.
- **Supporting Routine Activities**
This involves using Accounting Information Systems to support all routine activities in all the functional areas of the organisation. The activities include, taking customers orders, delivering goods and services, billing customers, etc.
- **Decision Support**
This is non-routine in nature. For example, in knowing which products are selling well, which customers are doing the most buying, etc.
- **Planning and Control of all activities**
In this case, reports are designed to compare budget figures to actual amounts, it is analytical in nature.

- **Implementing Internal Control**

This includes the policies, procedures and information system used to protect a company's assets from loss or embezzlement and to maintain accurate financial data.

- **Monitoring Performance**

A common use of accounting information is measuring the performance of various business operations. While financial statements are the classic accounting information tools used to assess business operations, business owners may conduct a more thorough analysis of this information when reviewing business operations. Financial ratios are the accounting information reported on financial statements and broken down into leading indicators. These indicators can be compared to other companies in the business environment or an industry standard. This helps business owners to understand how well their companies operate compared to other established businesses.

(b) Methods of Monitoring Performance in IT based organisations include:

- (i) Effective Supervision
- (ii) Responsibility Accounting
- (iii) Internal Auditing
- (iv) Operational Reporting Analysis

Explanation

(i) **Effective Supervision**

This involves training and assisting employees, monitoring their performance, correcting errors and safeguarding assets by overseeing staff who have access to them. Supervision is very important in any organisation that cannot afford elaborate responsibility reporting or those that are very small to have adequate segregation of duties.

(ii) **Responsibility Accounting**

This is a method or system that includes budgets, schedules, standard costs and ensuring quality standards. It is a performance report that compares actual with planned performances and highlights significant variances. It also includes procedures for investigating significant variances and taking timely action to correct the reason(s) for such variances.

(iii) Internal Auditing

It involves reviewing the reliability and integrity of financial and operating information and providing an appraisal of internal control effectiveness. It also involves assessing employees compliance with management policies and procedures and applicable laws and regulations and also a process of evaluating the efficiency and effectiveness of management.

(iv) Operational Reporting Analysis

This is a reporting format that compares budget with actual performance.

MARKING GUIDE

	MARKS
(a)(i) One (1) mark each for four (4) correct values i.e. (1 x 4)	4
(ii) One (1) mark each for listing and one (1) mark for explanation of five (5) values i.e. (1 x 5) + (1 x 5)	10
(b) One (1) mark each for stating and one (1) mark each for describing any three (3) methods i.e. (1 x 3) + (1 x 3)	6
	<hr/> 20 <hr/>

EXAMINER'S REPORT

This question is in two parts. The first part tests candidates' appreciation of the benefits derivable from the use of accounting information system while the second part tests the candidates' understanding of the main methods of monitoring performance in an IT based organization.

About 75% of the entire candidates attempted this question.

Performance was good as about 60% of the candidates who attempted this question scored more than half of the marks allocated.

The characteristic pattern among those candidates whose performance was below average included:

- i. Poor communication skills;
- ii. General display of insufficient knowledge of the subject-matter;
- iii. The words 'Values' and 'Uses' were confused and taken for one another.

It is recommended for enhanced performance in future that candidates should:

- i. Improve on their communication ability
- ii. Use correct and up-to-date texts
- iii. Get used to solving past examination questions.

SOLUTION 5

a. Information System

Information system consists of interrelated components working together to collect, process, store and disseminate information to support decision-making, coordination, control, analysis and visualisation in an organisation.

b. Functions of Executive Support Systems include:

- (i) Executive Support Systems help senior management to make reliable judgement, evaluation and have insight to process or procedures for arriving at a solution;
- (ii) They are designed to incorporate data about external events such as new tax laws or competitors to put the organisation in a better position;
- (iii) They can provide a minute-by-minute view of the firm's financial performance using working capital, accounts receivable, accounts payable, cash flow and inventory; position of a point in time.
- (iv) They can provide information at real time for day-to-day running of the organisation;
- (v) To provide senior managers with information on strategic issues and long term trends e.g. what will employment level be in say five years? What are the projected product lines?;
- (vi) They provide highly summarized information to the executive and senior management;
- (vii) They analyse data in variety of ways such as narrative, tables, graphical, forms, bar charts or pie charts;
- (viii) They provide selected information to senior executives on demand; and
- (ix) They provide information on critical success factor.

- (c) i. **Transaction Processing System (TPS)** is an information system that performs the recording, processing and executing daily routine transactions generated through the occurrence of business activities. TPS is used for routine tasks in which data items or transactions must be processed so that operations can continue. Examples of TPS applications are handling of sales orders, purchase orders, payroll items, stock records, nominal ledger, invoicing, management accounting, etc.

A TPS provides the raw materials, which are used more extensively by other information systems. The main purpose of a TPS is to handle day-to-day business operations and it represents the lowest in an organization use of information system.

- ii **Decision Support System (DSS)** is an information system at the management level of an organization that combines data, analytical tools and models to support semi-structured and unstructured decision making. DSS uses data collected by TPS to evaluate business models and assists managers in making tactical decisions.

Unstructured decisions are made in situations where it is not possible to specify in advance most of the decision procedures to follow, where there may be several 'right' answers, and no precise way to obtain a right answer.

A DSS is designed to provide a wide range of alternative information gathering and analytical tools with a major emphasis on flexibility and user friendliness. The objective of DSS is to allow the manager to consider a number of alternatives and evaluate them under a variety of potential conditions. It is operated by the end-user and exists to supplement human judgement in semi-structured decision-making.

MARKING GUIDE

			MARKS
(a)	Information System		
	- Capture, process and store data	1	
	- Information available for decision making	1	
			2
(b)	Functions of ESS		
	- One (1) mark each for listing and One (1) mark each for explaining any four (4) functions i.e. (1 x 4) + (1 x 4)		8
(c)(i)	TPS		
	- One (1) mark each for mentioning any five (5) prospectus of IRS i.e. (1 x 5)		5
(ii)	DSS		
	- One (1) mark each for stating any five (5) prospectus of DSS i.e. (1 x 5)	5	
			<u>20</u>

EXAMINER'S REPORT

This question tests the candidates' ability to display sufficient knowledge in the following areas:

- i. Information system;
- ii. Transaction Processing System;
- iii. Decision Support System; and
- iv. Executive Support System.

About 85% of the entire candidates attempted this question.

Performance was fair as only about 40% of the candidates who attempted this question scored 50% and above.

The general shortcomings exhibited by candidates included:

- i) Incorrect interpretation of the requirements of the question;
- ii) Poor communication.

For improved performance in future, candidates are advised to

- i. Spend more quality time for preparation;
- ii. Practise with past examinations questions;
- iii. Read good quality texts and ICAN Study Packs.

SOLUTION 6

- a. i) How computers are used as instruments of crime include the following:
- Theft of trade secrets;
 - Unauthorised intellectual properties such as articles, books, music and video;
 - Using email for threats or harassment;
 - Intentionally attempting to intercept electronic communication;
 - Illegally accessing stored electronic communications, including email and voice mail;
 - Transmitting or processing pornography using a computer;
 - Fraud;
 - Deliberate corruption of stored data and information.
- ii) Crime committed on computer systems include:
- Breaking of Password;
 - Breaching the confidentiality of protected computerised data;
 - Knowingly accessing a protected computer to commit fraud;
 - Intentionally accessing a protected computer and causing damage negligently or deliberately;
 - Accessing a computer system without authority;
 - Knowingly transmitting a program, program code, or command that intentionally cause damage to protected computer; and
 - Treating to cause damage to protected computer;
 - Telecommunication links;
 - Application files;
 - System files e.g. operating systems

(b)

LAHA Limited
Calculation of Cash Receipts Expected in January, February and March

Month	Product P (₦)	Product Q (₦)	Total (₦)
November	300,000	600,000	900,000
December	400,000	900,000	1,300,000
January	200,000	600,000	800,000
February	400,000	900,000	1,300,000
March	600,000	1,200,000	1,800,000

Month of Sales	Month of Collection					April
	20%	40% 20%	38% 40% 20%	38% 40% 20%	38% 40% 20%	
	November	December	January	February	March	
	₦	₦	₦	₦	₦	₦
November	180,000	360,000	342,000			
December		260,000	520,000	494,000		
January			160,000	320,000	304,000	
February				260,000	520,000	494,000
March					360,000	720,000
			<u>1,022,000</u>	<u>1,074,000</u>	<u>1,184,000</u>	

Cash receipts for the month of

January	=	1,022,000
February	=	1,074,000
March	=	1,184,000

MARKING GUIDE

					MARKS
(a)(i)	Computer Crime				
	- One (1) mark each for any four (4) areas where computer is used to commit crimes i.e. (1 x 4)				4
(ii)	Damages to Computer Systems				
	- One (1) mark each for any four (4) areas where crimes are committed on computer systems i.e. (1 x 4)				4
(b)	Computation of Total Sales (6 ticks – ½ mark each)			3	
	Computation of Cash Receipts expected for three months (January – March) (18 ticks – ½ mark each)			9	
					12
					<u>20</u>

EXAMINER'S REPORT

- (a) Question is divided into two parts which seek to test candidates' understanding of:
- (i) Those areas where computer can be used as an instrument of crime;
 - (ii) Crimes committed on a computer system.

About 95% of the examination candidates attempted this question.

Performance was poor as about 30% of the candidates who attempted the question scored 50% and above.

Very common pitfalls exhibited by candidates included:

- (i) Confused understanding of the requirements of the question;
- (ii) Poor communication;
- (iii) Inability to differentiate between instrument of crime and target of crime.

Improvement in performance in future will come if candidates:

- (i) Improve on their communication skills;
- (ii) Cover and digest the entire syllabus;
- (iii) Show enough interest in understanding IT terminologies.

- (b) The question tests candidates' ability to generate future cash inflows based on sales activities.

About 95% of the entire candidates attempted this question.

Performance was poor as only a third of the candidates who attempted the question scored 50% and above.

Major reasons responsible for the poor performance included:

- (i) Poor presentation;
- (ii) Lack of in-depth understanding of the requirements of the question;
- (iii) Non-computation of total sales figures as a condition precedent to computing periodical inflows;
- (iv) Poor arithmetic.

For improved performance in future, it is recommended that candidates should:

- i) Ensure adequate preparation;
- ii) Familiarize themselves with and use the right texts;
- iii) Improve on examination techniques.

FOUNDATION LEVEL EXAMINATION - NOVEMBER 2015

BUSINESS LAW

Time Allowed: 3 hours

SECTION A: MULTIPLE-CHOICE QUESTIONS (20 Marks)

ANSWER ALL QUESTIONS IN THIS SECTION

Write **ONLY** the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/statements.

1. Which of the following is **NOT** a consequence of breach of civil law?
 - A. Payment of damages
 - B. Restitution
 - C. Injunction
 - D. A term of imprisonment
 - E. Specific performance
2. The courts of coordinate jurisdiction on all matters are the
 - A. High Court of one State and that of another State
 - B. Supreme Court and the Court of Appeal
 - C. Federal High Court and a State High court
 - D. Customary Court of Appeal
 - E. Supreme Court of Nigeria and the International Court of Justice
3. Memorandum and Articles of Association are documents of
 - A. Incorporation of a company
 - B. Formation of a partnership agreement
 - C. Pre-incorporation contract
 - D. Sealing of all e-contracts
 - E. Conclusion of a contract under seal
4. **ONE** of the ways in which the life of a company may be terminated is by
 - A. Burning and shredding the books of the company
 - B. Changing the locker and keys on the main entrance doors
 - C. Putting security men on the premises
 - D. Voluntary winding-up by members
 - E. Putting notice of winding-up in the daily newspaper

5. The right of a shareholder to challenge the management of a company may be exercised through
- A. Refusal to pay salaries to members of the Management Board
 - B. Protests and placards at the venue of the Annual General Meeting
 - C. Withholding payment for the value of shares held in the company
 - D. Payment of taxes
 - E. Voting at a General Meeting
6. The duties of an auditor are many and require the exercise of
- A. Common Sense
 - B. Social Knowledge
 - C. Care and skill
 - D. Connection
 - E. Influence
7. A company that is unable to pay its debts as and when due is said to be
- A. Bankrupt
 - B. Bad
 - C. Illiquid
 - D. Insolvent
 - E. Undercapitalised
8. On commencement of compulsory winding-up of a company, any transfer of its property thereafter is
- A. Valid
 - B. Invalid
 - C. Void
 - D. Voidable
 - E. Enforceable
9. Under the Money Laundering (Prohibition) Act, the maximum sum of money that an individual may deposit in a bank account without further obligation is
- A. ~~₦~~700,000
 - B. ~~₦~~800,000
 - C. ~~₦~~900,000
 - D. ~~₦~~500,000
 - E. ~~₦~~1,000.000
10. The law that deals with theft in Nigeria is
- A. Law of tort
 - B. Law of contracts
 - C. Law of stealing
 - D. Criminal law
 - E. Sale of Goods Act

11. The offence of bribery in law requires **ONE** of the following
- A. Intention
 - B. Intention and fact of bribery
 - C. Intention and subject matter
 - D. Act of bribery and place of bribery
 - E. Subject matter and place of bribery
12. The court that has the exclusive jurisdiction to try offences under the Money Laundering (Prohibition) Act is the
- A. State High Court
 - B. Magistrate Court
 - C. Federal High Court
 - D. Sharia Court of Appeal
 - E. Criminal Court
13. The law that allows the transfer of legal title to cheques, promissory notes etc by mere handing over or mere delivery is
- A. Bills of Exchange Act
 - B. Banks and other Financial Institutions Act
 - C. Bills of Lading Act
 - D. Companies Income Tax Act
 - E. Central Bank of Nigeria Act
14. The remedy for a breach of contract which requires the defendant to perform a promise he made under the agreement is
- A. Damages
 - B. *Quantum Meruit*
 - C. Injunction
 - D. Specific performance
 - E. Rescission
15. An agent that makes secret profits has breached his duty of
- A. Secrecy
 - B. Good faith
 - C. Obedience
 - D. Assignment
 - E. Performance
16. Which of the following is **NOT** an essential element of vicarious liability?
- A. A master and servant relationship
 - B. The servant may be under a contract of service or contract for service
 - C. The act must be a tortious act and not an offence
 - D. The servant must have committed the tort in furtherance of the interest of the master
 - E. The servant must have committed the tort in the course of performing an official duty

17. Which of the following is **NOT** an implied condition or warranty in Sales of Goods transactions?
- A. Title
 - B. Time
 - C. Sale by sample
 - D. Customs and traditional usage
 - E. Fitness of purpose
18. In Hire Purchase contract, the duties of the hirer include the following **EXCEPT**
- A. Acceptance of delivery
 - B. Duty of care of the goods
 - C. Payment of instalment
 - D. Duty to buy the goods
 - E. Duty not to sell the goods
19. A person is said to have insurable interest in an insured person, thing or event when
- A. He is related by affinity to the insured
 - B. The insured is the property of the person
 - C. The insured is a chattel
 - D. He stands to gain or profit in his/its preservation and to suffer loss or damage in his/its destruction
 - E. The insured could go into extinction by usage
20. Which of the following is **NOT** a function of Central Bank of Nigeria?
- F. Issuing and distribution of Nigerian currency
 - G. Issuing and dealing in shares and debentures
 - H. Management of Nigeria's external reserves
 - I. Promotion of monetary stability
 - J. Banker and financial adviser to government

SECTION B: ANSWER ANY FOUR OUT OF SIX QUESTIONS IN THIS SECTION
(80 MARKS)

QUESTION 1

- a. Statutes of General Application are parts of the laws applicable in Nigeria
- i. What are Statutes of General Application? (2 Marks)
 - ii. State **SIX** sources of Nigerian Law. (6 Marks)
- b. Directors of a company are the executives that direct the affairs of the company. Thus, such an important position must have certain attributes and be guided by prescribed rules.

Explain briefly **FOUR** circumstances under which a person must vacate office as director of a company. (8 Marks)

- c. When a company is wound-up, there are consequences that affect the shareholders of the company.

Explain briefly **TWO** consequences of winding-up of a company on the shareholders. (4 Marks)

(Total 20 Marks)

QUESTION 2

- a. Any two or more persons may form and incorporate a company by complying with the requirements of the Companies and Allied Matters Act.

You are required to briefly explain **FOUR** documents required to be filed with the Corporate Affairs Commission for the incorporation of a company.

(10 Marks)

- b. In a Limited Liability Company, there could be no membership of the Board of Directors except by the actions of shareholders.

You are required to explain **TWO** ways by which shareholders could influence the composition of the Board and decisions of the company. (5 Marks)

- c. A company has the power to remove an auditor.

Explain briefly **TWO** ways of removing an auditor of a company. (5 Marks)

(Total 20 Marks)

QUESTION 3

- a. The Criminal Code does not create a single general offence of fraud, instead, there are a number of offences that are fraud related.

Required:

Explain briefly **THREE** offences of fraud.

(15 Marks)

- b. The Money Laundering (Prohibition) Act 2004 contains important provisions aimed at preventing money laundering, one of which is limitation on the amount of cash payment.

Required:

State the limitation on the amount of cash payment under the Act.

(5 Marks)

(Total 20 Marks)

QUESTION 4

- a. Law of torts deals with civil wrongs, a breach of which attracts damages.
- i. What is negligence in the law of tort? (2 Marks)
 - ii. What must a plaintiff establish for him to succeed in an action for negligence? (6 Marks)
- b. Computer and electronically generated evidence are admissible in Nigerian courts by virtue of the provisions of the Evidence Act, 2011.

Required:

State **THREE** conditions for the admissibility of computer and electronically-generated evidence under Nigerian laws. (6 Marks)

- c. An accountant owes a fundamental duty to ensure the accuracy and integrity of any financial statement prepared by him and should not engage in any fraudulent false accounting.

Required:

Enumerate **THREE** items that may constitute fraudulent false accounting under Nigerian laws. (6 Marks)

(Total 20 Marks)

QUESTION 5

- a. Professor John was appointed under the Establishment Law of XYZ University in Nigeria. The law of the University is a chapter in the Laws of the Federation of Nigeria.

Six months ago, Professor John disagreed with the Vice-Chancellor on some policy issues. Two weeks ago, the Vice-Chancellor sacked him without recourse to the relevant organs of the University, claiming that as the Vice Chancellor, he had the power to summarily dismiss any staff of the University. Professor John has approached you for advice on the matter.

Required:

- i. Advise Professor John on his rights under the Nigerian Labour Law. (5 Marks)
- ii. Explain **TWO** grounds upon which an employee may be summarily dismissed. (5 Marks)

- b. Discharge of contract refers to the means by which a contract is terminated or determined, and parties are generally relieved of their contractual obligations.

Explain **THREE** ways by which a contract may be discharged. (6 Marks)

- c. A valid and enforceable contract requires some essential elements.

State **FOUR** of such essential elements. (4 Marks)

(Total 20 Marks)

QUESTION 6

- a. The major parties in a hire-purchase agreement are the owner and the hirer. State and explain **FOUR** duties of the owner in a hire purchase contract.

(8 Marks)

- b. It is possible for a person to have possession of a property when he has not fully paid for it. Such a facility is possible through hire purchase as a form of commercial transaction.

Explain **TWO** rights of a hirer under a hire purchase transaction. (4 Marks)

- c. Under Sale of Goods Act, “Goods means chattel-personal other than money”.

List **FOUR** types of goods. (4 Marks)

- d. Agency relationships are important for effective national and transnational commercial transactions. The categories of agencies are as diverse as the categories of available businesses.

State **FOUR** types of agents. (4 Marks)

(Total 20 Marks)

SOLUTIONS

SECTION A - MULTIPLE CHOICE SOLUTIONS

1. D
2. A
3. A
4. D
5. E
6. C
7. D
8. C
9. D
10. D
11. B
12. C
13. A
14. D
15. B
16. B
17. B
18. D
19. D
20. B

EXAMINER'S REPORT

The questions achieved a good spread over the syllabus, and candidates' performance was good.

SECTION B

SOLUTION 1

a.

i. Statutes of General Application (SOGA) are statutes or laws that were in force in England as of January 1, 1900 which became applicable in Nigeria also, subject to the following:

- the statute in question must have been applicable in all parts, and to all classes of the community in England - A.G. v. John Holt (1910)
- Must be applicable to all courts in England
- If either the National Assembly or State House of Assembly enacts a law on the same matter, then the Statute of General Application will no longer apply. In which case, the Act of the National Assembly or Law of the State will prevail
- the local circumstances must be such that application of such a statute would not produce manifestly unreasonable results contrary to the intents of the statute.

ii. Sources of Nigerian Law include:

1. Received English Laws which comprise the Common Law, Doctrines of Equity, Statutes of General Application and applicable English Statutes
2. The Constitution
3. Nigerian Local Legislation (Acts of Parliament and Decrees Laws of States) including Subsidiary and Delegated legislation
4. Judicial Precedents (*Stare decisis*)
5. Customary Law including Islamic Law
6. Treaties and international obligations freely and willingly entered into by Nigeria
7. Law Reports and Academic Publications

b. A person must vacate office as director of a company under the following circumstances:

- Bankruptcy
A bankrupt must vacate office as director. Bankruptcy is a legal proceeding involving a person or business that is unable to repay outstanding debts where the debtor's assets are evaluated and used to repay a portion of the outstanding debt while the debtor is then relieved of further debt obligations;
- Unsound mind
A person who suffers infirmity of the mind is incapable of managing himself or his affairs. Such a person could also be called a mentally challenged person;

- **Shareholding qualification**
A director of a company must vacate office if he fails to obtain his share qualification within two months of the date of his appointment, or after the expiration of the said period, he ceases to hold his shareholding qualification;
- **Court Order**
A person removed or disqualified by the court as a director of a company on conviction for an offence of a fiduciary nature under Section 254;
- **Resolution of General Meeting**
A director of a company must vacate office if members at a General Meeting pass a resolution to remove him, or to not re-appoint him as a director;

(c) Consequences of winding up of a company on its shareholders are as follows:

- i. A new statutory liability as contributories comes into existence, as the initial liabilities of its shareholders are terminated on winding-up of the company;
- ii. Transfer of shares or alteration in the status of a shareholder after winding up is void and of no effect, as the Receiver becomes vested with the assets and liabilities of the company;
- iii. Investments of the shareholders of the company in the shares are lost upon winding up. The shareholders will only be entitled to the residue after settlement of the company's liabilities;
- iv. Shareholders no longer have the opportunity to exercise any right conferred on them by law, e.g., on appointment of directors, voting on any resolution, etc, because they cannot direct the management again after the death of the company.

MARKING GUIDE

			MARKS
(a)(i)	Statutes in force in England, applicable to the Colonies including Nigeria Must have been in existence as of January 1, 1900	1 1	
			2
(ii)	- Received English Law including Statute of General Application, Equity - Constitution - Local legislation (Act of Parliament, Laws of States) - Judicial Precedent - Customary Law including Islamic Law - Treaties and international obligations - Law Reports and Academic Writers Each correct source gets one (1) mark	1 1 1 1 1 1 1	6
(b)	Emphasis is on compulsory vacation of office by a director (each correct listing circumstance earns one (1) mark) Explanation of circumstance will earn another one (1) mark each - Bankruptcy - Insanity - Failure to obtain share qualification - Member's resolution - Removal/disqualification by the Court under Section 254	4 4	8
(c)	The consequences mentioned must have direct effect on shareholders (one mark for each consequence) Explanation given will also earn one (1) mark each	2 2	4
			<u>20</u>

EXAMINER'S REPORT

The question tests candidates' knowledge of the legal system with particular reference to sources of Nigerian Law; circumstances under which a director of a company must vacate office; and the consequences of winding up of a company on shareholders.

More than 95% of the candidates attempted the question, and performance was very good.

SOLUTION 2

- a. The documents required to be filed with the Corporate Affairs Commission (CAC) for incorporation of a company under S. 35 of the Companies and Allied Matters Act (CAMA), 2004 are:
- i. Memorandum of Association and Articles of Association;
 - ii. Notice of the address of the registered office of the company and the head office if different from the registered office. However, a postal box or private mail bag address is unacceptable as the registered office;
 - iii. A Statement of the authorized share capital signed by at least one director;
 - iv. A statement in prescribed form containing the list and particulars together with the consent of the persons who are to be the first directors of the company;
 - v. Any other document that may be required by the Commission to satisfy the requirement of any law relating to the formation of a company;
 - vi. Statutory declaration by the solicitor engaged in forming the company of Compliance with the relevant laws; and
 - vii. The particulars of the Company Secretary.
- b. Ways by which shareholders could influence both the composition of the Board and decisions of the company are by:
- i. Providing the parameter for the composition of the Board in the Articles of Association, e.g., minimum and maximum number, gender, discipline, age, etc.;
 - ii. Nominating people to be elected as directors for incorporation in the resolution to be presented to the Annual General Meeting;
 - iii. Voting on any resolution presented to the General Meeting either by show of hand or demand for a poll;
 - iv. Attending the General Meeting of the company where decisions are taken, through resolutions for corporate governance and operations.
- c. The auditor of a company may be removed by the:
1. Shareholders proposing a resolution to the General Meeting, and approving the removal of the auditor;
 2. Board not recommending the auditor for re-appointment; and
 3. General Meeting passing a resolution appointing another auditor to replace the incumbent.

All the procedures above require voting at the General Meeting. Once a vote has been taken, the auditor stands removed.

MARKING GUIDE

		MARKS
(a)	Every correct document mentioned below will earn two (2) marks each	8
	Satisfactory explanation on each of the four (4) documents mentioned will earn ½ mark	<u>2</u> 10
	<ul style="list-style-type: none">- Memorandum of Association- Articles of Association- Notice of the address of Registered Office- Statement of Share Capital/Allotment- List /Particulars of directors- Other Incorporation documents- Statutory Declaration of compliance	
(b)	Any acceptable two (2) ways by which Shareholders can influence board appointments and decisions of the company will earn two (2) marks each	
	<ul style="list-style-type: none">- Providing parameters in the Articles for composition of the board- Nominating people to be elected as directors- Voting on resolutions at general meetings- Attending general meetings	4
	Acceptable explanation gets ½ mark each	<u>1</u> 5
(c)	Each correct way mentioned is two (2) marks	4
	Explanation for each is ½ mark	<u>1</u> 5
	<ul style="list-style-type: none">- Resolution of general meeting to remove- Refusal of board to recommend re-appointment to general meeting- Resolution at general meeting appointing someone else to replace the auditor.	
		<u>20</u>

EXAMINER'S REPORT

The question tests candidates' ability to identify and explain the various documents required for filing with the Corporate Affairs Commission (CAC) for the incorporation of a company; how shareholders could influence the composition of the Board of Directors and the decisions of the company; and different ways by which an auditor of a company could be removed.

About 90% of the candidates attempted the question and their performance was good.

SOLUTION 3

- a. The following are fraud-related offences in the Criminal Code:
- i. False Pretences: The offence is created by section 419 of the Criminal Code that provides that the felony of obtaining property by false pretences and with intent to defraud is created if anyone obtains by any person anything capable of being stolen, or induces any other person to deliver to any person anything capable of being stolen;
 - ii. Cheating: Cheating is committed when a person, by means of any fraudulent trick or device, obtains from any other person anything capable of being stolen, or induces any other person to deliver to any person any money or goods or any greater sum of money or greater quantity of goods than he would have paid or delivered but for such trick or device;
 - iii. Obtaining property or credit by means of dishonoured cheque: Where a person obtains property or credit by means of a cheque that is subsequently dishonoured because of insufficient fund, he is guilty of obtaining property by false pretences;
 - iv. Forgery: This is committed when a person knowingly made a false document with intent that it may in any way be used or acted upon as genuine to the prejudice of any person that may, in the belief that it is genuine has been induced to do or refrain from doing any act;
 - v. Fraudulent false accounting: This is committed by any person, who being a clerk or servant, or being employed or acting in the capacity of a clerk or servant, does any of the following acts, with intent to defraud:
 - Destroys, alters, mutilates or falsifies any book, document, valuable security, or account, which belongs to or is in the possession of his employer or has been received by him on account of his employer, or any entry in any such book, document or account, or is privy to any such act; or
 - Makes, or is privy to making any false entry in any such book, document, or account, or
 - Omits, or is privy to omitting any material particular from any such book, document or account;
 - Makes false entry to increase the value of the assets of the company to enhance corporate value of the company;
 - Makes false entry to reduce the liabilities of the company for enhanced credit worthiness of the company; or
 - Makes false entry to reduce the profit of the company to evade taxation.

- c. The limits on the amount of cash payment under the Money Laundering (Prohibition) Act 2004 are:
- i. N500,000 or its equivalent, in the case of an individual; and
 - ii. N2 million or its equivalent, in the case of a body corporate.

MARKING GUIDE

		MARKS
(a)	Statement of three (3) offences of fraud earns one (1) mark each these are: obtaining property by false pretences, cheating, forgery, obtaining credit or property by dud cheque; and fraudulent false accounting.	3
	Satisfactory explanation of each offence earns four (4) marks	<u>12</u>
		15
(b)	- Ability to distinguish individual from corporate is one (1) mark each	2
	- Stating the amounts of limit for each of them is 1½ marks each	<u>3</u>
	- ₦500,000 for individual	5
	- ₦200,000 for corporate body	
		<u>20</u>

EXAMINER'S REPORT

The question tests candidates' knowledge of the offences of fraud and the limitation of cash payment under the Money Laundering (Prohibition) Act, 2004.

About 60% of the candidates attempted the question. Performance was good.

Candidates need to study this area of the syllabus more.

SOLUTION 4

(a)

- (i) Negligence is a breach of a legal duty to take care that has resulted into actionable damage. An act is negligent where the role-actor did not exercise the necessary care so as to avoid the damaging consequence of his act or omission.
- (ii) To succeed in an action for negligence, the plaintiff must prove that the:
 - Defendant owes him a duty of care, which must be a duty recognized by Law;
 - Defendant has breached the duty;
 - Breach was as a result of direct action of the defendant – this includes vicarious liability;
 - Plaintiff has suffered injury or damage as a result of the action of the defendant;
 - The intents of the Defendant does not matter under strict liability.

(b) The conditions for the admissibility of computer and electronically generated evidence under the Nigerian law (Section 84(1) of the Evidence Act 2011) are that:

- (i) The computer produced the evidence when used regularly to store or process information of the activities of the relevant period, whether for profit or not;
- (ii) Over that period, the kind of information in the evidence was supplied regularly to the computer in the ordinary course of those activities;
- (iii) At the material period, the computer operated properly, and that the period that it did not so operate was not so as to affect the production or accuracy of the contents of the document; and
- (iv) The information in the statement reproduced was derived from the information supplied to the computer in the ordinary course of those activities.

(c) Fraudulent false accounting is constituted when:

Any person, who being a clerk or servant, or being employed or acting in the capacity of a clerk or servant, does any of the following acts, with intent to defraud:

- (i) Destroys, alters, mutilates or falsifies any book, document, valuable security, or account, which belongs to or is in the possession of his employer or has been received by him on account of his employer, or any entry in any such book, document or account, or is privy to any such act; or
- (ii) Makes, or is privy to making any false entry in any such book, document, or account, or
- (iii) Omits, or is privy to omitting any material particular from any such book, document or account.
- (iv) Makes false entry to increase the value of the assts of the company to enhance corporate value of the company
- (v) Makes false entry to reduce the liabilities of the company for enhanced credit worthiness of the company
- (vi) Makes false entry to reduce the profit of the company to evade taxation.

MARKING GUIDE

		MARKS
(a) (i)	Breach of duty of care	1
	Resulting in actionable damage/injury	1
		2
(ii)	Issues to prove for a successful action	
	- Existence of duty of care	2
	- Breach of that duty	2
	- A direct consequential injury or loss	2
		6
(b)	Two (2) marks each for any three (3) of these:	
	- Regular use of computer for ordinary business	
	- The computer is the primary source of evidence	
	- Computer having been operated properly during the period under review	
	- Kind of information in evidence was usually supplied to the computer in ordinary course of business	
		6
(c)	Two (2) marks each for any three (3) of these	
	- Destruction, alteration, mutilation of book, document, file of employer by employee	
	- False entry in such books, document, file, etc., directly or in connivance with others	
	- Intentional omission of any material particular from such book, document, file by himself or he is privy to such	
	- False entry to increase value of assets	
	- False entry to reduce the liabilities	
	- False entry to reduce the profit or loss so as to evade tax	
		6
		<u>20</u>

EXAMINER'S REPORT

The question tests candidates knowledge of the law of torts, particularly the tort of negligence; conditions to be met for computer and electronically generated evidence to be admissible; and acts that constitute fraudulent accounting.

About 80% of the candidates attempted the question. Most of the candidates understood part (a) and (b) and performed well. However, performance in part (c) was poor.

The commonest pitfall was their inadequate understanding of the issues germane to admissibility of computer and electronically-generated evidence under the Nigerian law.

Candidates are advised to study harder.

SOLUTION 5

- (a) Under the Nigerian labour law, an employer has the right to summarily dismiss an employee in cases of gross misconduct, dishonesty, disobedience and similar conducts. However, the rule of natural justice, which demands that the employee be given fair hearing and opportunity to defend himself, must be followed.
- (i) The Vice-Chancellor sacked Professor John unheard and acted as a judge in his own cause. (*See Garba v University of Maiduguri; Olaníyan v University of Lagos*). Thus, Professor John may approach the Court for reinstatement and damages on the ground that the Vice-Chancellor's action was a breach of his fundamental right to fair hearing under section 33 of the Constitution of the Federal Republic of Nigeria 1999 (as altered).
- (ii) An employee may be dismissed summarily for the following:
- Act or conduct likely to bring the employer into disrepute;
 - Practices or conducts that expose the master to loss of public confidence;
 - Gross immorality;
 - Absenteeism without leave or permission, amounting to abandonment of duties; or
 - Gross misconduct, which may include insubordination, habitual drunkenness, gross negligence, willful disobedience of lawful orders, and so on.
- (b) Discharge of a contract may be by:
- i. **Performance**
The performance of the contract releases the parties from further obligations. A contract is discharged when both parties have fully performed their obligations;
- ii. **Fundamental breach**
This is a breach that goes to the root of the contract and renders it void. Such breach from a party could result in damages and other consequences against the defaulting party;
- iii. **Agreement between parties**
This is pursuant to a condition precedent that is inserted in the contract, for example, by giving specified notice or at the expiration of a term-contract.

iv. **Frustration**

This is usually due to an act outside the control of the parties. It is also referred to as *force majeure*. Examples are the death of a party to the contract, destruction of the subject-matter, unavailability of resources for the completion of the project, and supervening illegality.

(c) The essential elements of a contract are:

- i. Offer, which must be clear and unambiguous;
- ii. Acceptance, which must not be qualified;
- iii. Consideration, which must be real and not past; and
- iv. Intention to create legal relations, which could be inferred from relationship between the parties;
- v. Contractual capacity, which is that no party to the contract must suffer from legal incapacity at the time of entering into the contract.

MARKING GUIDE

			MARKS
(a)(i)	- An employer ordinarily has the right to summarily dismiss an employee on commission of grievous offence	1	
	- However, the action of VC is a breach of fundamental right of fair hearing	1	
	- A judge in his own case	½	
	- Mention of either S.33 of the Constitution OR Garba V. Unimaid OR Olaniyan V. UNILAG	½	
	- Conclusion: that Prof. John will succeed in action in court for re-instatement and damages	2	
			5
(ii)	Only two (2) of these are needed: Summary dismissal permissible for		
	- Acts or conduct likely to bring employer to disrepute or		
	- Practice, conducts likely to make the public lose confidence in employer		
	- Gross misconduct		
	- Gross immorality		
	- Refusal to obey lawful orders or instructions/insubordination		
	- Gross dishonesty		
	- Negligence which results in losses by employer to third parties		
	(2 ½ marks each for any two)		5
(b)	Discharge may occur by		
	- Performance and consequential release of parties		
	- Fundamental breach – goes to the root		
	- Mutual agreement – pursuant to condition precedent		
	- Frustration – outside the control of the parties		
	- Operation of law – merger, death, lapse of time, etc.		
	(2 marks each for any 3)		6

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- (c) All that is required here is to state four (4) essential elements of offer, acceptance, consideration, intention to create legal relations and contractual capacity (1 mark each for any 4)

4

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EXAMINER'S REPORT

The three-part question tests the candidates' knowledge of fundamental rights of an employee under the Nigerian labour law and the grounds for his summary dismissal; various ways a contract may be discharged; and the essential elements of a valid contract.

All (100%) the candidates attempted this question. Performance was excellent.

SOLUTION 6

(a) In Hire Purchase agreement, the owner has the duty to:

- i. **Disclose the cash price**
This is disclosure to the hirer of the cash price of the goods at the inception of the contract;
- ii. **Have title in the goods**
The owner must have the title to the goods subject-matter the hire purchase contract to be able to transfer ownership;
- iii. **Give quiet possession to the hirer**
The owner has the duty to ensure that the hirer enjoys quiet possession of the goods with no encumbrance or interference;
- iv. **Deliver the goods to the hirer**
The owner has the duty to deliver the goods to the hirer under the terms agreed in the hire purchase contract;
- v. **Accept instalmental payments**
The owner has the duty to accept the agreed instalmental payments during the period of the hire purchase.
- vi. **Refrain from repossessing**
The owner has the duty to refrain from possession of the goods other than a motor vehicle, as long as the hirer is meeting his obligations during the hire purchase period; and
- vii. **Deliver the goods to specification**
The owner has the duty to deliver to the hirer the goods in the exact and agreed quantity and quality;

(b) The hirer in a Hire Purchase agreement has the rights to:

- i. **Use of the goods**
The hire has the right not only of possession, but also to use the goods during the hire purchase period;
- ii. **Quiet possession and enjoyment of the goods**
The hirer is entitled to quiet possession of the goods without any encumbrance or interference whatever, as long as he pays for it in installments as agreed;

- iii. **Know the exact installments/amounts**
The hirer is entitled to know the exact installments to be paid (amount and period), as well as the total hire purchase price payable;
- iv. **Know cash price**
The hirer has the right to know the cash price of the goods as well as the hire purchase price; and
- v. **Choose his own insurer**
The hirer has the right to choose the insurer and the maintenance agent of the goods during the hire purchase period. Any agreement to the contrary is void

(c) Goods are of the following types:

- i. **Existing goods**
These are goods that have been manufactured, which are or in existence at the time of the contract;
- ii. **Future goods**
These are the goods to be produced at a later date;
- iii. **Ascertained/Specific**
These are goods already individually and specifically identified at the time of the contract e.g. Toyota Camry car with engine number 2000; and
- iv. **Unascertained goods**
These are goods described generally from where buyer's order would be picked e.g. "two tons of maize in a warehouse."

(d) Agents are of the following types:

- i. Factor;
- ii. Broker;
- iii. Auctioneer;
- iv. *Del Credere agent*;
- v. Solicitor; and
- vi. Estate agent.

MARKING GUIDE

		MARKS
(a)	The candidate earns 2 marks each for stating any FOUR (4) of the following: <ul style="list-style-type: none">i. Duty to disclose the cash price (value) of the goods to the hirer at the inception of the contract;ii. Duty to have title in the goods, subject matter of the contract;iii. Duty to give the hirer quiet possession of the goods;iv. Duty to deliver the goods to the hirer;v. Accept installment payments;vi. Duty to deliver the exact quantity and quality of the goods; andvii. Duty to refrain from repossessing the goods, other than a motor vehicle.	8
(b)	Any 2 of the following rights of a hirer are required for 2 marks each: One (1) point for stating the right and another one (1) point for explanation <ul style="list-style-type: none">i. Right to use the goods;ii. Right to quiet possession and enjoyment of the goods;iii. Right to know the exact number of installments to be paid and the cash price of the goods; andiv. Right to choose the insurer and the garage to maintain the goods or motor vehicle	4
(c)	The candidate is required to state FOUR (4) types of goods as follows: <ul style="list-style-type: none">i. Existing goodsii. Future goodsiii. Ascertained/Specific goods; andiv. Unascertained goods	<div style="display: flex; justify-content: flex-end; align-items: center;"><div style="text-align: right; margin-right: 10px;"><u>1</u> <u>1</u> <u>1</u> <u>1</u></div><div style="text-align: right;">4</div></div>
(d)	The question demands a statement of FOUR (4) types of agent as follows: <ul style="list-style-type: none">i. Factor;ii. Broker;iii. Auctioneer;iv. Del credere agent;v. Solicitor <div style="text-align: right; margin-top: 10px;">One (1) mark for each one (1) stated</div>	<div style="display: flex; justify-content: flex-end; align-items: center;"><div style="text-align: right; margin-right: 10px;"><u>4</u></div><div style="text-align: right;">4</div></div>
		<u><u>20</u></u>

EXAMINER'S REPORT

The question tests candidates' knowledge of the duties of the owner and rights of a hirer in a hire purchase agreement; the meaning of 'goods' in a sale of goods contract and the categories and types of agents.

About 90% of the candidates attempted this question. Most of them understood parts (c) and (d) and performed well there. However, candidates performed poorly in parts (a) and (b).

The commonest pitfall was candidates' difficulty in differentiating between rights and duties of the parties in a hire purchase contract.

Candidates' should study more this area of the syllabus and make use of the Institute's Study Pack.