DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 1: FINANCIAL ACCOUNTING
_____
MONDAY 11 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
_____

INSTRUCTIONS TO CANDIDATES

1.   You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2.   This paper is divided into TWO sections:
      Section A: One (1) Compulsory question.
      Section B: Five (5) Optional Questions. Attempt any Four (4) questions.

3.   Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4.   Do **NOT** write in pencil (except for graphs and diagrams).

5.   **Cell Phones** are **NOT** allowed in the Examination Room.

6.   The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7.   All workings must be done in the answer booklet.

8.   Present legible and tidy work.

9.   Graph paper (if required) is provided at the end of the answer booklet.

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

<u>**QUESTION ONE**</u>

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1   Musa, a sole trader had opening inventory of K30,400 on 1 January 2015. His Cost of Goods Sold figure on 31 December, 2015 was K92,000. Closing inventory as at 31 December, 2015 was K26,000. There were some purchase returns during the year amounting to K10,400.

What were the purchases for the year?

A.   K98,000

B.   K87,600

C.   K118,000

D.   K77,200   (2 marks)

1.2   Mansa Limited is in the process of preparing its cash flow statement for the year ended 30 September, 2016. The following balances were extracted from the statement of financial position as at 30 September:

	2016	2015
	K	K
Bank	12,000	20,000
Non-current liabilities		
8% Debentures	30,000	25,000
Capital and Reserves		
Share Capital	50,000	40,000
Share Premium	15,000	10,000
Retained earnings	23,000	17,000

What will be the increase or decrease in cash and cash equivalents at the end of 30 September, 2016?

A. Increase of K20,000

B. Decrease of K20,000

C. Increase of K8,000

D. Decrease of K8,000 (2 marks)

1.3 Mwami is carrying out a reconciliation of her payables ledger. She needs to make correcting entries due to the following errors:

1. A payment to Mwila Lombe has been posted to the account of Lombe Mwila
2. An invoice for K546 has been entered in the purchase day book as K456

Which of the corrections will result in an entry in the general ledger?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2 (2 marks)

1.4 Government produces financial reports regarding the sources and application of public funds. Which of the following is NOT a user of public sector financial reports?

A. Central government

B. Company shareholders

C. International funding organizations

D. Taxpayers (2 marks)

1.5 Which of the following errors would be found by extracting a trial balance?

A. A transaction has been completely missed in the accounts

B. The double entries have been made the wrong way round

C. Different figures have been entered for the debit and credit entries

D. An expense item has been posted to a non-current asset account. (2 marks)

1.6   Which of the following are TRUE of partnerships?

1.   The partners' individual exposure to debt is limited.
2.   Financial statements for the partnership by law must be produced and made public.
3.   A partnership is not a separate legal entity from the partners themselves.

A.   1 and 2 only

B.   2 only

C.   3 only

D.   1 and 3 only   (2 marks)

1.7   Which accounting concept should be considered if the owner of a business takes goods from inventory for his own personal use?

A.   The substance over from concept.

B.   The accruals concept.

C.   The going concern concept

D.   The business entity concept.   (2 marks)

1.8   B and B Company purchased a machine with an estimated useful life of 10 years for K456,000 on 30 June 2013. The machine has a residual value of K96,000.

What are the ledger entries to record depreciation charge for the machine in the year ended 30 June 2016?

A.   Dr Depreciation charge   K36,000
         Cr Acculated depreciation   K36,000

B.   Dr Depreciation charge   K36.000
      Dr Non-current assets   K72,000
         Cr Acculated depreciation   K108,000

C.   Dr Acculated depreciation   K36,000
         Cr depreciation charge   K36,000

D.   Dr Acculated depreciation   K108,000
         Cr Non-current assets   K108,000
                                                           (2 marks)

1.9   The bank statement on 31 October 2016 showed an overdraft of K5,600. On reconciling the bank statement, it was discovered that a cheque drawn by your company for K560 had not been presented for payment and that a cheque for K910 from a customer had been dishonoured on 30 October 2016, but this had not yet been notified to you by the bank.

What is the correct bank balance to be shown in the statement of financial position at 31 October 2016?

A.   K7,070 overdrawn

B.   K6,160 overdrawn

C.   K5,250 overdrawn

D.   K5,040 overdrawn   (2 marks)

1.10   Rudo had an opening accrual of K10,660 for telephone expenses. During the year she paid invoices totaling K59,480. Her closing accrual was K9,760.

What is the correct charge for the telephone expenses in Rudo's income statements?

A. K39,060

B. K58,580

C. K60,380

D. K79,900   (2 marks)

[Total: 20 Marks]

SECTION B

There are five (5) questions in this section. Attempt any four (4) questions

QUESTION TWO

Mapalo, a limited liability company has the following trial balance as at 30 June 2016

	Dr	Cr
Inventory at 1 July 2015	17,600	
Administrative expenses	17,648	
Distribution costs	5,200	
Cash at bank	800	
Non-current assets at cost:		
Buildings	80,000	
Plant & equipment	11,200	
Motor vehicles	2,560	
Retained earnings		12,880
Suspense		1,500
Accumulated Depreciation:		
Buildings		32,000
Plant and Equipment		3,840
Motor vehicles		960
Trade receivables	7,008	
Purchases	33,600	
Dividend paid	1,600	
VAT payable		11,120
Trade payables		8,900
Sales revenue		94,016
K1 ordinary shares		8,000
Share premium		4,000
	177,216	177,216

The following additional information is relevant:

(i)   Depreciation is to be provided as follows:

  (1)   Building at 5% straight line, charged to Administrative expenses.

  (2)   Plant and equipment at 20% on the reducing balance basis, charged to cost of sales.

  (3)   Motor vehicles at 25% on the reducing balance basis, charged to distribution costs.

(ii)   Salaries amounting to K3,900 were outstanding at the year end.

(iii)   No final divided is being proposed.

(iv)   A customer has gone into liquidation owing K608. This debt is not expected to be recovered and an adjustment should be made. An allowance for receivables of 5% is to be set up.

(v)   1 million new ordinary shares were issued at K1.50 on 1 June 2016. The proceeds are left in a suspense account.

(vi)   Closing inventory is K12,800.

(vii)   The directors propose to create a general reserve by transferring K20,000 from profits.

(viii) The tax charge provided for the year is K6,000.

Required:

(a)   Prepare Mapalo Limited statement of profit or loss for the year to 30 June 2016.

(5½ marks)

(b)   Prepare Mapalo Limited Statement of changes in equity for the year to 30 June 2016.

(4½ marks)

(c)   Prepare Mapalo Limited Statement of financial position as at 30ᵗʰ June, 2016

(10 marks)

Note: the above statements must be prepared in accordance with the requirements of IFRS.

QUESTION THREE

(a)   Kaboshe is the proprietor of a shop selling chairs and tables. For accounting purposes he wishes the business to be divided into two departments:

Department A :   Chairs
Department B :   Tables

The following balances have been extracted from his nominal ledger at 31 December 2016:

	Dr K	Cr K
Sales: Department A		375,000
Sales :department B		250,000
Inventory :Department A, 1 Jan 2015	6,250	
Inventory :Department B, 1 Jan 2015	5,000	
Purchases: Department A	255,000	
Purchases :Department B	190,100	
Wages of sales assistants :Department A	36,000	
Wages of sales assistants :Department B	34,000	
Vanishing costs	1,500	

General office salaries   66,000
Fire insurance – buildings   1,800
Lighting and heating   3,100
Repairs to premises   875
Internal telephone   150
Cleaning   900
Accountancy charges   7,450
Sundry expenses   2,550
Inventory at 31 December 2016 was valued at:
Department A :   7,050
Department B :   4,560

The proportion of the total floor area occupied by each
department was:
Department A   2/5
Department B :   3/5

The apportionment should be made by using the methods as shown:

Area:-
Fire Insurance
Lighting and heating
Repairs
Telephone
Cleaning

Turnover:-
General office salaries
Accountancy
General office expense:
Vanishing

Required:

(a)   Prepare Kaboshe's departmental statement of profit or loss for the year ending 31
        December 2016, apportioning the costs to show the net profit or loss of each
        department.   (14 marks)

(b)   Using the results obtained in part (a), recommend the decisions that Kaboshe should
        take for the two departments.   (4 marks)

(c)   Define the following terms, in relation to accounting for public sector organizations:
        (i)   Below the line
        (ii)   Virement   (2 marks)
                                                        [Total: 20 Marks]

QUESTION FOUR

You have been provided with the following information from the financial records of Malole general dealers.

Balances on 1 Jan 2016	K
Accounts receivable ledger – Dr	325,234
Cr	1,715
Accounts payable ledger – Dr	10,304
Cr	178,255

Total for the month to 31 Jan 2016	K
Purchases	535,318
Sales	882,168
Purchase returns	15,078
Accounts receivable settled by contra accounts with accounts payable	3,185
Bad debt written off	8,771
Discounts and allowances to customers	5,222
Cash received from customers	843,248
Cash discount received	13,594
Cash paid to creditors	493,332
Cash paid to customers	364

Required:

(a) Prepare accounts receivable ledger control account. (4½ marks)
(b) Prepare accounts payable ledger control account. (4½ marks)

(c) The following errors have been discovered:

(i) An invoice for K6,540 has been entered in the purchases day book as K4,560.

(ii) A prompt payment discount of K700 from a creditor has been completely omitted from the accounting records.

(iii) A credit note from a supplier for K600 had been entered as if it was an invoice.

Required:

State the numerical effect on the Payable ledger control account balance of correcting each of these items. (3 marks)

(d) Explain the four (4) main purposes of control accounts (4 marks)

(e) Explain the fundamental qualitative characteristics of the IASB framework for financial reporting. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

The following is a summary of the receipts and payments of the Enelesi Rotary Club during the year ended 31 July 2016:

Enelesi Rotary Club

Receipts and payments Account for the year ended 31 July 2016

	K		K
Cash and balances b/d	25,200	Secretarial expenses	19,560
Sales of competition tickets	52,440	Rent	168,240
Members subscriptions	238,440	Visiting speaker's expenses	153,000
Donations	21,240	Donations to charities	4,200
Refund of rent	60,000	Prizes for competitions	32,400
Balance c/d	1,560	Stationery & printing	21,480
	398,880		398,880

The following additional information also available:

As at 31 July	2015	2016
	K	K
Equipment (original cost K170,400)	117,000	93,600
Subscriptions in arrears	7,800	10,200
Subscriptions in advance	1,200	4,440
Owing to Suppliers of competition prizes	6,960	8,160
Inventory of completion prizes	4,560	5,520

Required:

(a) Calculate the value of the accumulated funds of the Enelesi Rotary Club as at 1 August 2015. (3 marks)

(b) Reconstruct the following accounts for the year ended 31 July 2016:

   (i)   The subscriptions account. (2½ marks)

   (ii) The competition prizes expense account. (2½ marks)

(c) Prepare the income and expenditure account for the Enelesi Rotary Club for the year ending 31 July 2016 and statement of financial position as at that date.

(12 marks)

[Total: 20 marks]

QUESTION SIX

The trial balance of Chanda Kabaso as at 31 December 2016 showed a difference and was posted to the suspense accounts. Draft final accounts for the year ended 31 December 2016 were prepared showing a net profit of K472,400. The following errors were discovered:

1. Sales of K4,500 to C. Tembo had been debited to Tembo and Sons Manufacturing limited.

2. Payment of K2,750 for telephone charges had been entered on the debit of the telephone account as K3,750.

3. The sales journal had been undercast by K20,000.

4. Repairs to a machine amounting to K3,900 had been charged to machinery account.

5. A cheque for K15,000 being rent received from Beene limited, had only been entered in the cash book.

6. Purchases from P Banda, amounting to K7,650 had been received on 31 December 2016 and included in the closing inventory at that date, but the invoice had not been entered in the purchases journal.

Required:

(a)   (i)   Prepare the journal entries, without narratives to correct the above errors.
(12 marks)

(ii)   Show the effect of each of the above adjustments on the net profit in the draft financial statement and show the corrected profit at 31 December 2016.
(6 marks)

(b)   Distinguish between capital and revenue expenditure.
(2 marks)
[Total: 20 Marks]

END OF PAPER

DA 1: FINANCIAL ACCOUNTING SOLUTIONS

SOLUTION ONE

1. A
2. D
3. B
4. B
5. C
6. C
7. D
8. A
9. B
10. B

SOLUTION TWO

(a) <u>Mapalo limited Statement of profit or loss for the year ended 30 June 2016</u>

	K
Revenue	94,016
Cost of sales (w2)	(39,872)
Gross profit	54,144
Administrative expenses (w3)	(26,476)
Distributive costs (K5,200 + K400 (w1)	(5,600)
Profit before tax	22,068
Tax charge	(6,000)
Profit before tax	16,068

(b) <u>Statement of charges in equity for the year ended 30 June 2016</u>

	Share Capital K	Share Premium K	General reserves K	Retained Earnings K	Total K
Balance at 1 July 2015	8,000	4,000	-	12,880	24,880
Total comprehensive income for the year	-	-		16,068	16,068
Dividend paid	-	-		(1,600)	(1,600)
Transfer to general reserve			20,000	(20,000)	-
Share issue	1,000	500		-	1,500
Balance at 30 June 2016	9,000	4,500	20,000	7,348	40,848

(c) <u>Statement of financial position as at 30 June 2017</u>

	K	K
Non-current Assets		
Property, plant and equipment (w4)		51,088
Current Assets:		

Inventory	12,800	
Trade receivables (K7,008 – K608 – K320)	6,080	
Cash at bank	<u>800</u>	
		<u>19,680</u>
Totals Assets		<u>70,768</u>

	K	**K**
Equity and Liabilities:		
Equity:		
Share capital		9,000
Share premium		4,500
General reserves		20,000
Retained earnings (w6)		7,348
Current liabilities:		
VAT payable	11,120	
Trade payables	8,900	
Income tax payable	6,000	
Accruals	<u>3,900</u>	
		<u>29,920</u>
		<u>70,768</u>

Workings:

1.	Depreciation:	**K**
	Buildings (K80,000 x 5%)	4,000
	Plant (K11,200 – K3,840) x 20%	1,472
	Motor vehicles (K2,560 – K960) x 25%	400

2.	Cost of sales:	**K**
	Opening inventory	17,600
	Purchases	33,600
	Depreciation (w1)	1,472
	Closing inventory	<u>(12,800)</u>
		<u>39,872</u>

3.	Administrative expenses:	**K**
	Per trial balance	17,648
	Depreciation (w1)	4,000
	Outstanding salaries	3,900
	Irrecoverable debt	608
	Receivables allowance (K7,008 – K608) x 5%	<u>320</u>
		<u>26,476</u>

4. Property, plant and equipment:

	Cost K	Acc. dep K	Dep. Chg. K	Carrying Amt. K
Buildings	80,000	32,000	4,000	44,000
Plant	11,200	3,840	1,472	5,888

Motor vehicles	2,560	960	400	1,200
	93,760	36,800	5,872	51,088

5. Retained earnings:	K
Balance brought forward per T/B	12,880
Profit for period	16,068
Dividend paid	1,600
Transfer to general reserves	(20,000)
	7,348

SOLUTION THREE

Kaboshe's

Departmental income statement for the year ending 31 December 2016:

	A		B	
	K	K	K	K
Sales		375,000		250,000
Less: Cost of goods sold:				
Inventory 1 Jan 2015	6,250		5,000	
Add purchases	255,000		190,100	
	261,250		195,100	
Less inventory 31 December 2015	(7,050)		(4,560)	
		254,200		190,540
Gross profit		120,800		59,460
Less expenses				
Wages	36,000		34,000	
Vanishing costs	900		600	
General office salaries	39,600		26,400	
Fire insurance	720		1,080	
Lighting and heating	1,240		1,860	
Repairs to premises	350		525	
Internal telephone	60		90	
Cleaning	360		540	
Accountancy charges	4,470		2,980	
Sundry expenses	1,530	85,830	1,020	68, 495
Net profit (loss)		34,970		(9,035)

Workings

Details	Basis of Allocation	Total	Dept. A	Dept. B
Vanishing cost	Turnover	1,500	900	600
Fire Insurance	Floor area	1,800	720	1,080
Lighting	Floor Area	3,100	1,240	1,860
Repairs	Floor Area	875	350	525
Telephone	Floor Area	150	60	90
Cleaning	Floor Area	900	360	540
Vanishing	Turnover	1,500	900	600
General office Sal	Turnover	66,000	39,600	26,400
Accountancy charges	Turnover	7,450	4,470	2,980
Sundry expenses	Turnover	2,550	1,530	1,020

(b)
Management may decide to improve the performance of department B by carrying out specific marketing campaigns to boost its sales or by reducing its operating expenses that are higher as % of sales at 27% against 22% for department A. Additionally, cost of sales to sales ratio is 76% for department B against 67% for department A.
The company's management needs to consider the methods that are being used to apportion the expenses as B's losses may have nothing to do with controllable costs but uncontrollable.

(C)

i.   Below the line: exceptional and extraordinary items which are not included in the calculation of above the line profit or loss.
ii. Virement: the transfer of funds from one budget head to another.

SOLUTION FOUR

(a)

Account Receivable Ledger Control

	K		K
Balance b/d	325,234	Balance b/d	1,715
Sales	882,168	Contra	3,185
cash	364	Bad debt	8,771
		Discount	5,222
		Cash	843,248
		Balance c/d	345,625
	1,207,766		1,207,766
Balance	345,625		

(b)

Account Payables Ledger Control

	K		K
Balance b/d	10,304	Balance b/d	178,255
Returns	15,078	Purchases	535,318
Contra	3,185		
Discount received	13,594		
Cash	493,332		
Balance b/d	178,080		
	713,573		
			713,573
		Balance b/d	178,080

(c)
(i) Increase of K1,980
(ii) Decrease of K700
(iii) Decrease of K1,200

d.)
- Control account provide a check on the accuracy of entries made in the personal accounts in the receivables and payables ledger
- Assist in locating errors in the personal accounts
- Provides an internal check where there is separation of bookkeeping duties
- Provides a total of the receivables and payable balance to be used in the financial statement

e.)
- **Relevance:** Information should be capable of influencing economic decisions.
- **Faithful representation**: information should be reliable. Information represents what it purports to represent, if it is neutral, complete and free from material errors.

SOLUTION FIVE

(a)

Accumulated fund at 1st August, 2015

	K	K
Equipment		117,000
Inventory of prizes		4,560
Arrears of subscriptions		7,800
Cash and bank		25,200
		154,560
Less: Subscription in advance	1,200	
Prizes suppliers	6,960	8,160
		146,400

(b)   (i)   Subscriptions Account

	K		K
In arrears b/d	7,800	In advance b/d	1,200
In advance c/d	4,440	Subscriptions received	238,440
Income & expenditure(Bal fig)	237,600	In arrears c/d	10,200
	249,840		249,840

(ii)   Competitions Prizes account

	K		K
Inventory b/d	4,560	Accounts payable b/d	6,960
Cash	32,400	Inventory c/d	5,520
Accounts payable c/d	8,160	Cost of prizes given	32,640
	45,120		45,120

(c)   Rotary Club

	K	K
Income		
Subscription		237,600
Ticket sales	52,440	
Less cost of prizes	32,640	19,800
Donations received		21,240
		278,640
Less Expenditure:		
Rent (K168,240 – K60,000)	108,240	
Visiting speaker's expense	153,000	
Secretarial expenses	19,560	
Stationery and printing	21,480	
Donations to charities	4,200	
Depreciation	23,400	329,880
Excess of expenditure over income		51,240

Statement of Financial Position as at 31 July 2016

	K	K
Non-current Assets:		
Equipment at cost	170,400	
Less: Depreciation	(76,800)	
		93,600
Current Assets:		
Inventory of prizes	5,520	
Arrears of subscriptions	10,200	
		15,720
		109,320
Current Liabilities:		
Account payables for prizes	8,160	
Advance subscriptions	4,440	
Bank overdraft	1,560	(14,160)
		95,160
Accumulated Fund:		
Balance 1 Aug 2015		146,400
Less excess of expenditure over income		51,200
		95,160

SOLUTION SIX

	K	K
(i) C Tembo	4,500	
Tembo and Son Manufacturing Limited		4,500
Suspense	2,000	
Telephone		1,000
Suspense	20,000	
Sales Account		20,000
Machine repairs	3,900	
Machinery		3,900
Suspense	15,000	
Rent received *		15,000

*Assumed not invoiced to Beene limited

	K	K
Purchase account	7,650	
P Banda		7,650

(ii)   Corrected Profit for the year ending 31 December 2016

	K	K
Profit		472,400
Add: Telephone expense overstated	1,000	
Sales understated	20,000	
Rent received omitted	15,000	
		36,000
		508,400
Less: Machinery repairs understated	3,900	
Purchases omitted	7,650	
		11,550
Corrected profit figure		496,850

(b)   Capital expenditure is when a business spends money to buy or add value to a non-current asset while revenue expenditure is a total of expenses for the day to day running of the business.

- It is necessary to distinguish between the two so that they are treated correctly.

- If they are treated wrongly the figures in the statement of financial position and income statement will be incorrect resulting in wrong net profit and non-current assets.

END OF SOLUTIONS

DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 2: QUANTITATIVE ANALYSIS
_____

WEDNESDAY 13 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
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7.   All workings must be done in the answer booklet.

8.   Present legible and tidy work.

9.   Graph paper (if required) is provided at the end of the answer booklet.

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

<u>**QUESTION ONE**</u>

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1   With reference to events A and B, how would you best describe mutually exclusive outcomes?

   A.   A and B are dependent events.

   B.   A and B are independent events.

   C.   The occurrence of event A excludes event B from occurring.

   D.   Events A and B happen at the same time.   (2 marks)

1.2   When the coefficient of determination is 0.65, which of the following is correct?

   A.   y = 0.65x

   B.   y = a + 0.65x

   C.   65 per cent of the variation in y can be explained by the corresponding variation in x.

   D.   65 per cent of the correlation in x can be explained by the corresponding variation in y.   (2 marks)

1.3   A company must choose between two projects - Project A or Project B. The profits generated from each project are as follows.

Project A		**Project B**	
Probability	Profit (K)	Probability	Profit/(loss)(K)
0.45	4,000	0.64	8,000
0.55	2,000	0.36	(1,000)

Which project should be chosen and its expected value of profit?

    (a)   A   2,900

    (b)   A   3,000

    (c)   B   5,480

    (d)   B   4,760   (2 marks)

1.4   What is the variance of the following five numbers: 4, 6, 8, 12, and 15?

    (a)   8.9

    (b)   9.0

    (c)   16

    (d)   80   (2 marks)

1.5   The discount rate at which the net present value is zero is called:

A. NPV
B. Discount factor
C. Internal rate of return
D. Point of Equilibrium   (2 marks)

1.6.   The average rate of arrival of customers at a busy check-out counter is three customers per minute. The probability that at any given minute, there will be less than two arrivals (to 2 decimal places) is:

A. 0.04
B. 0.14
C. 0.42
D. 0.20   (2 marks)

1.7   A class frequency distribution for a random sample of measurements is shown below.

Class limits	frequency
1-5	4
6-10	8
11-15	5
16-20	3

The sample mean of the values in the table above is:

A. 9.75

B. 20

C. 195

D. 5   (2 marks)

1.8   The regression equation is given as $y = a_0 + a_1 x$ where x and y are independent and dependent variables respectively. On the scatter diagram, the independent variable is typically presented on:

A. The vertical axis

B. The horizontal axis

C. The regression line itself

D. The independent variable is actually not included on scatter diagram   (2 marks)

1.9   Suppose the average number of car accidents on the highway in one day is 4. What is the probability of no car accident in one day?

A. 0.18320

B. 0.98168

C. 0.01832

D. 0.07320   (2 marks)

1.10   Of a large number of mass –produced articles, one fifth ($^1/_5$) is defective. Find the probability that a random sample of 50 will obtain exactly 6 defective articles.

A. 0.5537

B. 0.0442

C. 0.6537

D. 0.05537   (2 marks)

[Total: 20 Marks]

SECTION B

There are FIVE (5) questions in this section. Attempt any FOUR (4) questions

QUESTION TWO

(a)   Two projects P and Q have the following net cash flows;

Year	0	1	2	3	4	5
Project P	-420,000	-5,000	122,000	130,000	148,000	150,000
Project Q	-95,000	-10,000	-120,000	200,000	110,000	-50,000

(i)   Using the net present value criterion, determine which project is the most profitable if a discount rate of 6% and 8% is used.   (8 marks)

(ii)   Estimate the Internal Rate of Return of each project. Which project would now be considered more profitable?   (7 marks)

(b)   (i)   Define a yield curve.   (2 marks)

(ii)   Give any three (3) applications of a yield curve   (3 marks)

QUESTION THREE

(a)   It is estimated that 55% of freshmen that are entering a programme are certain to graduate from their college in four years' time. From a random sample of six freshmen;

(i)   What is the probability that exactly three will graduate?   (3 marks)

(ii)   What is the probability that more than four will graduate?   (3 marks)

(iii)   What is the average number that would graduate from a group of six freshmen?   (2 marks)

(b)   You are the manager of a chain of hospitality companies which hire cars to clients for various business purposes. Your boss is interested in the monthly distances covered by the cars.

The table below shows a sample of distances covered by hired cars in a month and the following distances (mileage in kilometers) were recorded

102	98	72	82
71	92	94	101
77	60	88	94
67	84	92	82
89	75	79	76

Calculate:

(i)   The average distance covered by the cars.   (2 marks)

(ii)   The median distance   (2 marks)

(iii)   The first quartile   (2 marks)

(iv)   The third quartile   (2 marks)

(v)   The standard deviation   (4 marks)

QUESTION FOUR

(a)   The Bursar of a Nursery school would like to invest some surplus cash. She decided to visit three banks (Zanaco, Stanbic and Finance) and was offered the following Conditions:

(i)   Zanaco would pay interest at a nominal rate of 10.5%, compounded bi-annually, correct to 2 decimal places.

(ii)   Stanbic would pay interest at a nominal interest rate of 12%, compounded monthly, correct to 2 decimal places.

(iii)   Finance bank would pay interest at a nominal interest of 12%, compounded   quarterly, correct to 2 decimal places.

Required:

In which Bank must the bursar invest her surplus cash?   (12 marks)

(b)   Mr. Bwalya borrows K5 000 from the bank. He agrees to repay the loan in six equal

monthly payments at 5% interest per month on the unpaid balance. Construct the

amortization schedule showing how much of each monthly payment is used for

interest and how much is used to reduce the unpaid balance**.**

(8 marks)

[Total: 20 Marks]

QUESTION FIVE

A manufacturer can produce two kinds of Biscuits: Plain and Cream, using the same equipment in a similar three-stage process involving mixing, cooking and packaging. Boxes of Plain sell at a profit of K1.00 and boxes of Cream at a profit of K1.25. For each production run, the processing times (minutes) per box and the availability of the equipment is as follows:

	Processing times (minutes)		Equipment
	Plain	**Cream**	**availability**
Mixing	2	4	24 hours
Cooking	10	8	60 hours
Packaging	3	1	15 hours

The manufacturer wishes to maximise profit.

Required:

(a)   State the objective function and constraint functions.   (8 marks)

(b)   Graph the constraints and shade the feasible region.   (6 marks)

(c)   Recommend a suitable production mix for the manufacturer which will maximise

profit and profit amount.   (6 marks)

[Total: 20 Marks]

QUESTION SIX

(a)   Define simulation   (1 mark)

(b)   Mrs. Chisenga owns a bakery in Kasama. She keeps stock of a popular brand of cake. Daily demand based on past experience is given below:

Daily Demand	Probability
0	0.01
15	0.15
25	0.20
35	0.50
45	0.12
50	0.02

Consider the following sequence of random numbers:

   $48, 78, 09, 51, 56, 77, 15, 14, 68$ and 09

(i)   Using the sequence, simulate the demand for the next ten (10) days.
                                                                                                                 (9 marks)

(ii)   Find the stock situation if Mrs. Chisenga decides to make 35 cakes every day.

                                                                                                                 (4 marks)

(iii)   Estimate the daily average demand for the cakes on the basis of the
        simulated data.   (3 marks)

(c)   Blossom's Flowers purchases roses for sale for a grand graduation ceremony of XYZ University. The roses are purchased for K10 a dozen and sold for K20 a dozen. Any roses not sold on graduation ceremony day can be sold for K5 per dozen. The owner will purchase 1 of 3 amounts of roses on graduation ceremony day: 100, 200 or 400 dozen roses. Given 0.2, 0.4 and 0.4 are probabilities for the sale of 100, 200 or 400 dozen roses, respectively, what is the EMV for buying 200 dozen roses?
                                                                                                                 (3 marks)
                                                                                         [Total: 20 Marks]

END OF PAPER

DA 2: QUANTITATIVE ANALYSIS SOLUTIONS

SECTION A

SOLUTION ONE

1.1   **C**

1.2   **C**

1.3   **D**   A = (0.45x4,000) + (0.55x2,000) , Proj. B = (0.64x8,000)+(0.36x-1,000)

 = 1,800 +1,100   =5,120-360

 = 2,900   = **4,760 (D is better)**

1.4   **C** The arithmetic mean of the five numbers is: 4+6+8+12+15=45/5= 9 = $\bar{x}$

x	x - $\bar{x}$	(x - $\bar{x}$)^2	
4	-5	25	
6	-3	9	
8	-1	1	
12	3	9	Variance = $\dfrac{\Sigma (x - \bar{x})^2}{n}$
15	6	<u>36</u>	
		<u>80</u>	$= \dfrac{80}{5}$
			=16

1.5 **C**

1.6 **C** $P(x) = \dfrac{e^{-\mu}\mu^x}{x!} = \dfrac{e^{-3}3^0}{0!} + \dfrac{e^{-3}3^1}{1!} + \dfrac{e^{-3}3^2}{2!} = 0.42$

1.7 **A** $(3*4+8*8+13*5+18*3)/20 = 9.75$

1.8 **B**

1.9 **C**   We assume a Poisson distribution

$\lambda = 4$

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$$P(X=x) = \frac{e^{-\lambda}\lambda^x}{x!}$$

$$P(X=0) = \frac{e^{-4}4^0}{0!} = 0.01832$$

1.10 **D**

$$n = 50, p = \frac{1}{5} = 0.2, q = 1 - 0.2 = 0.8$$

$$P(X=x) = \binom{n}{x} p^x (1-p)^{n-x}$$

$$P(X=6) = \binom{50}{6}(0.2)^6 (0.8)^{50-6} = 0.05537$$

SECTION B

SOLUTION TWO

a. At 6%

Project X

$NPV_X = -5000(1.06)^{-1} + 122000(1.06)^{-2} + 148000(1.06)^{-4} + 130000(1.06)^{-3} + 150000(1.06)^{-5}$-420000

$= -4716.98 + 108579.57 + 109150.51 + 112088 - 420000 =$**82331.69**

Project Y

$$NPV_Y = -10000(1.06)^{-1} - 120000(1.06)^{-2} + 200000(1.06)^{-3} + 110000(1.06)^{-4}$$
$$- 50000(1.06)^{-5} - 95000$$

$$= -9433.96 - 106799.57 + 167923.86 + 87130.30 - 37362.91 - 95000 = 6457.72$$

AT 8%

Project X

$NPV_X = -5000(1.08)^{-1} + 122000(1.08)^{-2} + 148000(1.08)^{-4} + 130000(1.08)^{-3} + 150000(1.08)^{-5}$-420000

$= -4629.63 + 104595.34 + 103198.19 + 108784.42 + 102087.48 - 420000 =$

-5964.2

Project Y

$$NPV_Y = -10000(1.08)^{-1} - 120000(1.08)^{-2} + 200000(1.08)^{-3} + 110000(1.08)^{-4} - 50000(1.08)^{-5} - 95000 = 1549.35$$

Therefore, at 6%, project X is better than project Y

At 8% project Y is better than project X

$$IRR_X = \frac{(6 \times -5964.2) - (8 \times 82331.69)}{-5964 - 82331.69} = 7.86$$

$$IRR_y = \frac{(6 \times -1549.35) - (8 \times 6457.72)}{-1549.35 - 6457.72} = 7.6$$

According to the IRR project X is more profitable

b. Yield curve is the relationship between the level of interest rate (or cost of borrowing) and the time to maturity of the debt for a given borrower in a given currency.

APPLICATION
I. The yield curve is one of the best indicators of current economic conditions as perceived by bond market
II. It is crucial for the pricing of many financial derivatives, as well as consumer credit and mortgage rates for ordinary borrower.
III. Data from yield curve is used widely by economists in order to predict future economic trends

Central banks authorities attach important values to the signals emitted by the yield curve in evaluating the so called inflation expectation of the public.

SOLUTION THREE

a) Binomial distribution

$$P(x) = nCx. \pi^x (1 - \pi)^{n-x}$$

$\pi = 0.55, \quad 1 - \pi = 0.45 \quad n = 6$

i. $p(x = 3) = 6C3. (0.55)^3 (0.45)^3$

=20 x 0.166375 x 0.091125

$= 0.3032$

ii. $P(x > 4) = P(5) + P(6)$

$= 6C5. (0.55)^5 (0.45)^1 + 6C6. (0.55)^6 (0.45)^0$

$= 0.1359 + 0.0277$

$= 0.1636$

iii. $E(X) = n\pi = 6(0.55) = 3.3,$

μ=np=6 x 0.55

=3.3

b) i. $average = \frac{1}{20} \times [60 + 67 + 71 + 72 + \cdots \ldots \ldots \ldots \ldots + 101 + 102]$

$= \frac{1675}{20}$

$= 83.75$

ii. median is the middle observation if the observation are arranged in increasing order.

67,67,71,72,75,76,77,79,82,82,84,88,89,92,92,94,94,98,101,102

Since there are 20 observations, the 10 the and 11th are 82 and 84, hence

Therefore median $= \frac{82+84}{2}$

$= 83$

iii. $Q_1 = 20 \times \frac{1}{4} = 5 \, th \, item$

$= 75$

iv. $Q_3 = 20 \times \frac{3}{4} = 15th \, item$

$= 92$

v.   Standard deviation

$$SD = \sqrt{\frac{1}{n-1}\Sigma(x - \bar{x})^2}$$

$$= \sqrt{\frac{1}{20-1}[(60 - 83.75)^2 + (67 - 83.75)^2 + \cdots]}$$

$$= 11.66$$

OR   SD $= \sqrt{\frac{\Sigma X^2}{n} - \bar{x}^2} = \sqrt{\frac{142863}{20} - 83.75^2} = \sqrt{7143.15 - 7014.01} = \sqrt{129.09} = 11.4$

SOLUTION FOUR

(a) Effective rate of interest $= (1 + \frac{r}{m})^m - 1$

(i) Zanaco $= (1 + \frac{0.105}{2})^2 - 1$

$= (1 + 0.0525)^2 - 1$

$= 1.107756 - 1$

$\underline{= 10.78\%}$

(ii) Stanbic $= (1 + \frac{0.12}{12})^{12} - 1$

$= (1 + 0.01)^{12} - 1$

$= 1.1268 - 1$

$= 0.1268$

$\underline{= 12.68\%}$

(iii) Finance $= (1 + \frac{0.12}{4})^4 - 1$

$= (1 + 0.03)^4 - 1$

$= 1.125509 - 1$

$= 12.55\%$

The best option is to invest the surplus cash in **STANBIC BANK**

(b) We first find the monthly payment:

$$R = P\left[\dfrac{r}{1-\left(1+r\right)^{-n}}\right] = 5000\left[\dfrac{0.05}{1-\left(1.05\right)^{-6}}\right] = K985.10$$

After the first payment, the interest due is $5000\left(0.05\right) = K250$ and the amount applied to the principal is $985.10 - 250 = 735.10$. Thus, the unpaid balance after the first payment is made is $5,000 - 735.10 = K4,264.90$. We continue this process until the loan is retired. The amortization schedule is next.

Period	R	Interest portion of R	Principal portion of R	Unpaid balance
0				
1	985.10	250.00	735.10	4, 264.90
2	985.10	213.25	771.86	3, 493.04
3	985.10	174.65	810.45	2, 682.59
4	985.10	134.13	850.97	1, 831.62
5	985.10	91.58	893.52	938.10
6	985.10	46.91	938.19	00

Note that the last payment is adjusted so that we end with zero balance.

SOLUTION FIVE

(a) Let X = number of boxes for Plain

Let Y = number of boxes for Cream

The objective is to maximise profits.

Max (Z) = X + 1.25Y

Subject to the following constraints;

(i) $2x + 4y \leq 1,440$ (24x60)   Mixing

(ii) $10x + 8y \leq 3,600$ (60x60)   Cooking

(iii) $3x + y \leq 900$ (15x60)   Packaging

(iv) $X \geq 0, Y \geq 0$ Non negative

(b)   Prior to graphing we need the various intercepts on the axes.

Mixing   If x = 0, y = 360; If y = 0, x = 720

Cooking   If x = 0, y = 450; if y = 0, x = 360

Packaging   if x = 0, y = 900; if y = 0, x = 300
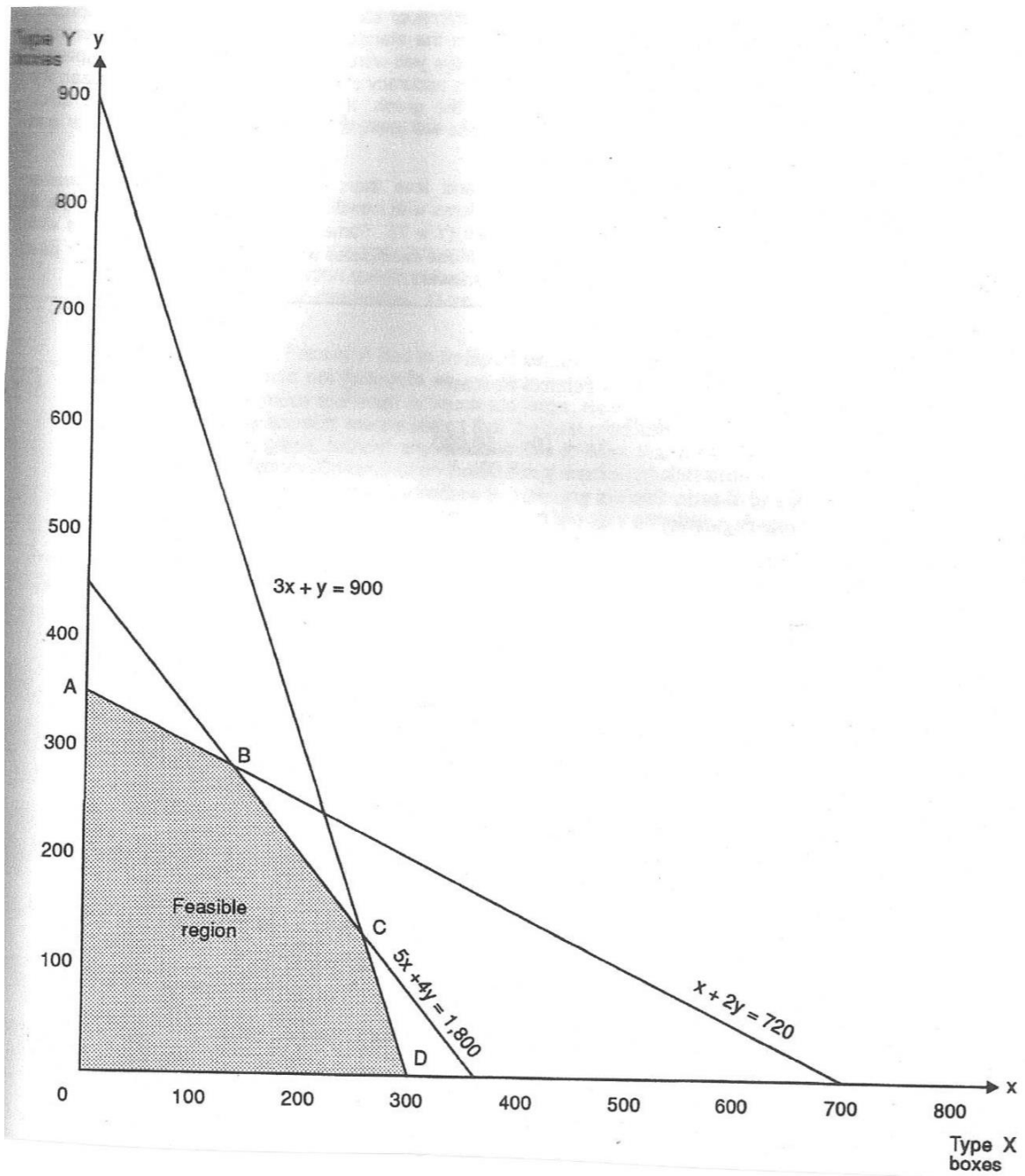
(c) The profits at the coordinates of the feasible region should be calculated.

Vertex	X	Y	x + 1.25y
A	0	360	450
B	120	300	495
C	257	129	418
D	300	0	300

The maximum profit is K495 which is obtained by producing 120 boxes of Plain and 300 boxes of Cream biscuits. Alternatively;

Produce: X = 120 boxes and Y = 300 boxes and maximise profits of up to K495.

SOLUTION SIX

(a) Simulation is an imitation of reality. In other words, simulation is the imitation of the operation of real –world process or system overtime.

(b)

i.   The simulated demand for the cakes for the next 10 days can be obtained from the table below

Allocation of random numbers to demand of cakes				
Demand	Probability	Cumulative probability	Random number interval	Random numbers fitted
0	0.01	0.01	00	
15	0.15	0.16	01 – 15	$09(3),15(7),14(8),09(10)$
25	0.20	0.36	16 – 35	
35	0.50	0.86	36 – 85	$48(1),78(2),51(4),56(5),77(6),68(9)$
45	0.12	0.98	86 – 97	
50	0.02	1.00	98 – 99	

simulate the demand, the number 00 is assigned to zero demand, numbers 01 – 15 are assigned to demand of 15 cakes, 16 – 35 are assigned to demand of 25 cakes and so on. The given 10 random numbers are fitted in the last column corresponding to the ranges against the demand values. These random numbers give the demand for cakes for next 10 days. Serial numbers of these random numbers are shown in brackets.

Therefore, the numbers of cakes demanded in the next 10 days are:
$35,35,15,35,35,35,15,15,35$ and 15 respectively

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ii.   The stock situation for various days if the decision is made to make 35 cakes every day is given in the table below:

Day	Demand	Number of cakes made	Stock
1	35	35	-
2	35	35	-
3	15	35	20
4	35	35	20
5	35	35	20
6	35	35	20
7	15	35	40
8	15	35	60
9	35	35	60
10	15	35	80

iii.   Average daily demand

$$= \frac{1}{10}[35+35+15+35+35+35+15+15+35+15] = \frac{270}{10} = 27 \text{ Cakes}$$

(c)EMV for items that have a Salvage Value

Market Size:	100	200	400
Probability :	0.2	0.4	0.4

From the data given in the problem, we can calculate the conditional profit values for each stock and the event (market size) combination. If CP denotes the conditional profit, S the quantity in stock and D the market demand, then

$$CP = \begin{bmatrix} (20-10)S = 10S, & when & D \geq S \\ 20D - 10S + 5(S-D), & when & D < S \end{bmatrix}$$

The resulting pay – off matrix is given below. A stock of 100 flowers each day will result in daily profit of K1000 irrespective of the demand. A stock of 200 flowers each day will result in a profit of K2000 when the demand is 200 flowers or more. But when the demand is 100 flowers, the conditional profit will be $K[20 \times 100 - 10 \times 200 + 5(200 - 100)] = K500$. The conditional profits for each stock action – event combination can, therefore, be calculated

Conditional Profit Table

Possible demand (event)	Probability (i)	Possible Stock Action (alternative)		
		100 (ii) K	200 (iii) K	400 (iv) K
100	0.2	1000	500	-500
200	0.4	1000	2000	1000
400	0.4	1000	2000	4000

Expected Profit Table

Possible demand (event)	Probability (i)	Possible Stock Action (alternative)		
		100 (ii) $(i) \times (ii)$ K	200 (iii) $(i) \times (iii)$ K	400 (iv) $(i) \times (iv)$ K
100	0.2	200	100	-100
200	0.4	400	800	400
400	0.4	400	800	1600
$EMV(K)$		1000	1700	1900

$\therefore$ EMV for buying 200 dozen roses is K1700.

END OF SOLUTIONS

DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 3: BUSINESS ECONOMICS
_____
TUESDAY 12 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
_____

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO sections:

    Section A: Ten (10) compulsory multiple choice questions.

    Section B: Any two (2) of three (3) optional questions on Microeconomics.

                      Any two (2) of three (3) optional questions on Macroeconomics.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8.   Present legible and tidy work.

9.   Graph paper (if required) is provided at the end of the answer booklet.

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

<u>**QUESTION ONE**</u>

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen.

1.1   Consumer surplus in a market is best described as:

   A.   The total supply to consumers in the market.
   B.   The total net benefit to consumers in the market.
   C.   The marginal net loss to consumers in the market.
   D.   The quantity supplied outweighing the quantity demanded.

(2 marks)

1.2   …………. is a law that bars trade with another country.

   A.   Embargo
   B.   Tariff
   C.   Quota
   D.   Free Trade

(2 marks)

1.3   If the price elasticity of demand at a point is – 0.8 and the demand curve is linear, a company wanting to increase its total revenue should.

   A.   Keep the price the same but decrease the cost of production.
   B.   Decrease the price of the product.
   C.   Keep the price the same but increase the quality of service.
   D.   Increase the price of the product.

(2 marks)

1.4   Diseconomies of scale are experienced when the:

   A.   Cost per unit increases as output increases.
   B.   Cost per unit decreases as output increases.
   C.   Average cost decreases as output decreases.
   D.   Average cost remains constant as output decreases.

(2 marks)

1.5   A perfectly competitive firm maximizes its profit by producing at a point where:

A.   MR = P
B.   MR > MC
C.   MR = MC
D.   MR < MC

(2 marks)

1.6   If the central bank wants to decrease the money supply, it should:

A.   Decrease the cash reserve requirement.
B.   Purchase government bonds.
C.   Increase the cash reserve requirement.
D.   Ask people to save less.

(2 marks)

1.7   If a consumption function has a formula C = 1250 + 0.75Y; where Y is the change in national income, and injections are 800, then equilibrium national income will be at:

A.   2100
B.   2800
C.   1250
D.   8200

(2 marks)

1.8   When money is used as a measure of value for future payments, it fulfils the function of money as:

A.   A medium of exchange.
B.   A standard of deferred payment.
C.   A unit of account.
D.   A store of value.

(2 marks)

1.9   If 2015 is the base year for real gross domestic product calculations, we know for certain that nominal gross domestic product:

A.   Equals real gross domestic product in 2015.
B.   Is less than real gross domestic product in 2015?
C.   Is greater than real gross domestic product in 2015.
D.   In 2014 will be less than nominal gross domestic product in 2015.

(2 marks)

1.10 Which of the following is a positive statement?

A. Smoking should be restricted on all airline flights.
B. The minimum wage should not be increased because it would increase unemployment.
C. All automobile passengers should be required to wear seatbelts for their safety.
D. None of the above.

(2 marks)
[Total: 20 Marks]

SECTION B

This section has two parts: Part 1. Microeconomics and Part 2. Macroeconomics

1.   **MICROECONOMICS – Attempt two (2) questions out of three (3) questions: TWO, THREE and FOUR.**

QUESTION TWO

(a)   Suppose that the supply and demand equations for a perfectly competitive market are:
Qd = 1625 - 50P and Qs = 25 + 30P

     (i)   Calculate the market equilibrium price and quantity.   (2 marks)

     (ii)   If there are 25 firms in the industry, find how much each firm in the industry would produce.   (2 marks)

     (iii)   If the total cost equation of each firm in the industry is:
TC = $5 + 10Q + 0.2Q^2$, determine whether each firm is producing at its profit-maximizing level of output.

                                                                               (4 marks)

     (iv)   Determine whether each firm in the industry is long-run competitive
           equilibrium.   (2 marks)

(b)   As more output is produced in the short run, marginal cost initially falls, reaches a minimum and then eventually rises.

     (i)   Explain why marginal cost exhibits such a pattern.   (2 marks)

     (ii)   Explain why the marginal cost curve intersect the average cost curve when average cost is at a minimum.   (3 marks)

     (iii)   Using any example, explain the principle of increasing opportunity cost with reference to the shape of the production possibilities curve.   (5 marks)
[Total: 20 Marks]

QUESTION THREE

(a)   Tobacco companies raise the average price of a pack of cigarettes from K1.95 to K2.45 because of a legal settlement over health care claims.

Required:

(i) In an event that the projected decline in cigarette sales was 8 percent, explain what this implies about the elasticity of demand for cigarettes.   (3 marks)

(ii) Describe how the addictive nature of cigarettes influences the price elasticity of demand for cigarettes.   (2 marks)

(b)   Identify and describe any five (5) essential conditions which are necessary for economic growth to be attained.   (10 marks)

(c)   Use a diagram to explain the long run equilibrium condition of a firm operating in a monopolistic competition market.   (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a)   Consider a situation where government imposes a minimum monthly wage of K700.00 for domestic workers but the market wage is at K500.00 per month.

Required:

(i)   Graphically illustrate the scenario described above.   (3 marks)

(ii)   Explain two (2) possible effects of such a government policy on the employment of domestic workers.   (4 marks)

(b)   Mumbi baked 50 cakes in her first month as a sole trader. The total variable cost of production was K5,000.00 and the average total cost of producing each cake was K120.

Required:

(i)   What is the total cost of producing 50 cakes?   (2 marks)
(ii)   What is the total fixed cost?   (2 marks)
(iii)   What is the average fixed cost?   (1 mark)
(iv)   Mumbi is considering forming a partnership with Chomba and Natasha. What advice would you give her on any four (4) advantages and any four (4) disadvantages of being a sole proprietor to help her make an informed decision?   (8 marks)

[Total: 20 Marks]

2. MACROECONOMICS – Attempt any two (2) questions out of the three (3) questions: FIVE, SIX and SEVEN.

QUESTION FIVE

(a)   The Central Statistical Office presents you with the following information from the Labour Force Survey for 2016:

Working age population	8,149,797
Employed persons	5,859,225
Unemployed persons	469,851
Not economically active population	1,820,721

Required:

(i)   Determine the labour force participation rate.   (2 marks)
(ii)   Calculate the unemployment rate.   (2 marks)
(iii)   Frictional and structural unemployment are two types of unemployment which exist in Zambia. Describe both of these types of unemployment and give an example in each case.   (6 marks)

(b)   Identify any four (4) costs of unemployment in Zambia.   (4 marks)

(c)   Outline how Zambia's investment demand will be affected when:
(i)   Consumer confidence increases.   (2 marks)
(ii)   There is a reduction in manufacturers' use of existing capacity.   (2 marks)
(iii)   Commercial banks lower interest rates.   (2 marks)

[Total: 20 Marks]

QUESTION SIX

(a)   What is a flexible exchange rate?   (1 mark)

Use a diagram to demonstrate and concisely explain the depreciation of the Zambian Kwacha against the U.S. Dollar under a flexible exchange rate regime.   (7 marks)

(b)   Use the two-sector circular flow diagram to explain the movement of income and spending and goods and services in an economy.   (6 marks)

(c)   Justify the necessity for financial intermediation in aiding the flow of funds from surplus to deficit economic units.   (6 marks)

[Total: 20 Marks]

QUESTION SEVEN

(a) Consider the following information about an open economy:

Consumption (C) = 15000 + 0.4Yd; Disposable income (Yd) = Y – T; Taxes (T) = 0.3Y; Government spending (G) = 4500; Investment (I) = 3000; Exports (X) = 6000; and Imports (M) = 1500 + 0.2Y.

(i) Find the aggregate demand (AD) function. (4 marks)

(ii) Determine the equilibrium income (Y) for this economy. (3 marks)

(iii) By how much will equilibrium income change if exports rise to 9500? (3 marks)

(b) Discuss the phenomenon of hyperinflation highlighting two (2) main causes, two (2) consequences and two (2) possible policy solutions. (10 marks)

[Total: 20 Marks]

END OF PAPER

DA3: BUSINESS ECONOMICS SOLUTIONS

SECTION A: MULTIPLE CHOICE

SOLUTION ONE

1.1   B

1.2   A

1.3   D

1.4   A

1.5   C

1.6   C

1.7   D

1.8   B

1.9   A

1.10   D

SECTION B: MICROECONOMICS
SOLUTION TWO

(a)

   (i) Qd = Qs at equilibrium

       $1625 - 50P = 25 + 30P$

       $80P = 1,600$

       $P = 20$

       $Q = 1625 - 50(20) = 25 + 30(20) = 625$

   (ii) 625/25 = 25, i.e., each firm in the industry produces 25 units of output.

   (iii) TR = PQ = 20Q

       Π = TR - TC

       $\Pi = 20Q - (5 + 10Q + 0.2Q^2)$

       $\Pi = -5 + 10Q - 0.2Q^2$

       Use the first-order derivative condition for profit maximization, $d\Pi/dQ = 10 - 0.4Q = 0$. Then solve the first-order condition for Q to obtain 25 as the profit maximizing output. This means that each firm in the industry is producing at the profit maximizing level of output and there is currently no reason to alter the current level of production.

   (iv) An individual firm in a perfectly competitive industry is in long-run competitive equilibrium when profit = 0. At the current level of output, the profit of each firm is 120 ($-5 + 10(25) - 0.2(25)^2$). This is not long-run equilibrium since each firm is earning a positive economic profit and new firms will enter the industry which will increase industry supply and result in lower prices. This process will continue until each firm earns zero economic profit.

(b)

   (i) This is because as variable inputs are used with some fixed inputs, there may first be increasing returns, but eventually diminishing returns will set in. As a result, the MC curve first falls but eventually rises, giving it the "U" shape.

   (ii) The MC curve always intersects the AC curve at its lowest point because as long as MC is below AC, it pulls the average down. When the MC is above AC, it pulls the average up. Only when MC equals AC is AC neither falling nor rising (i.e., AC is at its lowest point).

   (iii) "Resources are not equally efficient in the production of all goods and services, i.e., they are not equally productive when used to produce an alternative good. This imperfect substitutability of resources is due to differences in the skills of labour and to the specialized function of most machinery and many buildings. Thus, when the decision is made to produce more guns and less butter, the new resources allocated to the production of guns are usually less productive. It therefore follows that as

larger amounts of resources are transferred from the production of butter to the production of guns, increasing units of butter are given up for fewer incremental units of guns. This increasing opportunity cost of gun production illustrates the principle of increasing costs." (Salvatore & Diulio, 2003:7)

SOLUTION THREE
(a)
(i) % change of the price of cigarettes = [(2.45 − 1.95)/1.95]*100
% change of the price of cigarettes = (0.50/1.95)*100
% change of the price of cigarettes = **25.64%**
% change of the price of cigarettes = **26% (rounded off figure)**

For a price increase of approximately 26%, the decrease in quantity demanded for cigarettes is estimated to be 8%. This implies that **consumers of cigarettes are not very sensitive** to changes in the price of cigarettes in that the change in quantities demanded is three times bigger than the change in price.

(ii) People become accustomed to consuming certain products so much that they become addicted to using them for many different reasons. Cigarettes are known to be such products due to the tobacco content. Due to this addiction, consumers of cigarettes are not sensitive to price changes. Thus, as in the example above a change in the price of cigarettes leads to a relatively smaller change in the consumption of cigarettes.

(b) Some of the essential conditions for growth include:
- **Factor endowments**: A country can develop if it is well endowed with factors of production like natural resources e.g. minerals and arable land, human resources with high labour skills, and capital resources which it uses efficiently and effectively.

- **Social and physical infrastructure:** A country can develop when it puts into place the necessary social and physical infrastructure like access to clean water and sanitation, health care, energy, railway and road networks.

- **Access to markets:** Countries with good trade links is likely to attain economic development because it can expand its access to bigger markets which include the foreign demand.

- **Good investment climate:** When a country has an environment characterised by factors like macroeconomic stability, political stability, political will to development, the rule of law based on stable laws, favourable tax regimes, and the protection of property rights, it will be ripe for economic development.

- **Access to capital:** Development requires that resources are devoted to projects like power generation, roads, and communication which not only cater for current

needs but future needs too. Such projects will usually need high capital outlays. A country which does not have access to capital, including borrowing from international financial institutions, will not be able to engage in big projects.

(c)
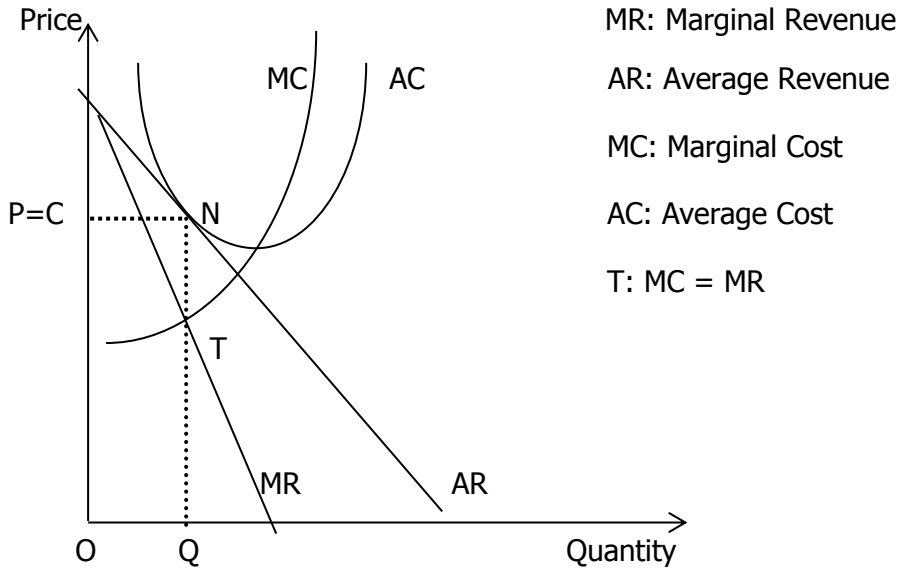
The firm maximizes its profit and P and Q are profit maximizing price and profit maximizing quantity respectively. In the long run there are barriers to entry in the monopolistic competition market. So the short run supernormal profit of TR >TC will disappear. This will give way to the long run equilibrium condition which is TR =TC at N on the diagram and area rectangle PNQO (total revenue) is equal to area rectangle CNQO (total cost).

SOLUTION FOUR
(a)
    (i)
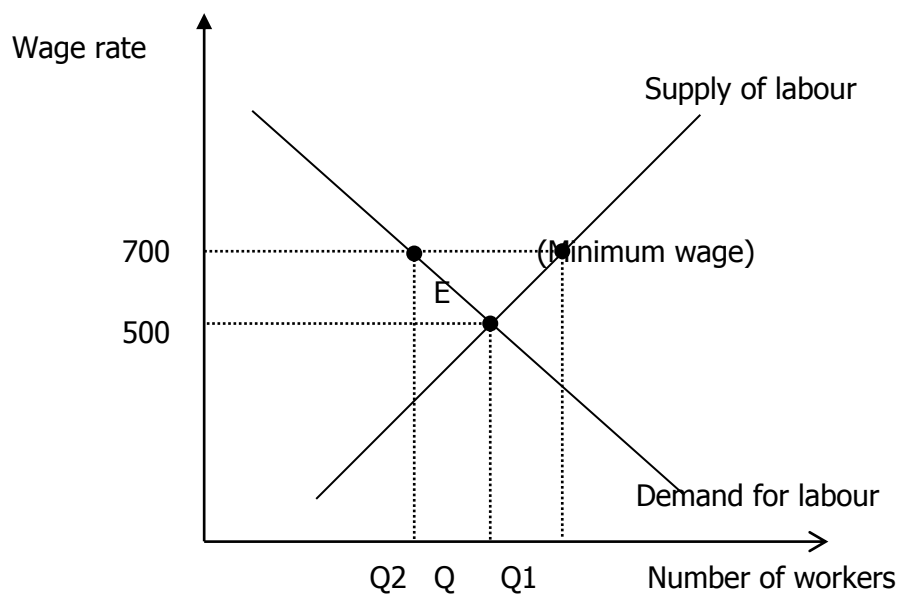
(ii) At the equilibrium wage of K500.00 there are Q workers employed. After a minimum wage of K700.00 is imposed, the number of domestic workers employed falls from Q to Q2.

Possible effects of upward revision of the minimum wage;
- More workers may become unemployed as current employers could decide not to keep their workers.
- Potential employers could decide not to hire one at all.
- The cost of production for employers who maintain or hire domestic worker will go up.
- The standard of living for those domestic workers at Q2 who remain employed will be raised by K200.00. In this case, the workers will be able to afford to pursue a decent life.

(b)
(i) TC = ATC x Q
TC = 120 x 50
TC = K6,000.00

(ii) TFC = TC – TVC
TFC = 6000 – 5000
TFC = K1,000.00

(iii) AFC = TFC/Q
AFC = 1000/50
AFC = K20.00

(iv) A sole trader is a type of business enterprise that is owned and run by one individual. There is no legal distinction between the owner and the business. The owner receives all the profits and has unlimited responsibility for all losses and debts. All the assets of the business are owned by the individual.

Advantages of sole proprietorship
- It is relatively easy to establish as small amounts of capital are required to start and run the business.
- It has a high level of flexibility as the owner is the only controller of the establishment.
- Some creditors are willing to extend credit because the owner has unlimited liability.
- The owner receives all the profits from the business.

Disadvantages of sole proprietorship
- It has limited resources and formal lending institutions do not usually grant loans to businesses with small assets and high failure rates.
- The owner is responsible for paying all the business debts and damages.

- In the event that the business fails to pay its liabilities, the owner's personal property can be sold to clear claims.
- The business tends to collapse once the owner is deceased.

SECTION B: MACROECONOMICS
SOLUTION FIVE

(a)

    (i) Labour force participation rate (LFPR) = portion of working age population who are in the labour force

       LFPR = (labour force/ working age population) x 100

       LFPR = [(employed + unemployed persons)/ working age population] x 100

       LFPR = [(5,859,225 + 469,851)/ 8,149,797] x 100

       LFPR = (6,329,076/ 8,149,797) x 100

       LFPR = **77.66%**

    (ii) Unemployment rate = portion of labour force who are not employed

       Unemployment rate = (unemployed persons/ labour force) x 100

       Unemployment rate = (469,851/ 6,329,076) x 100

       Unemployment rate = **7.42%**

    (iii) Frictional unemployment is the type of unemployment which arises because it takes time to find employment or to move from one job to another. At any point in time there are people who are moving from one firm to another. This kind of unemployment is unavoidable but is not considered a serious problem because as some individuals find jobs, others move on to other new jobs and others are fresh entrants into the labour force. **An example** can be that of a person who resigns from his job at one firm and must wait some weeks to take up their new appointment at a new company. **Another example** of frictional unemployment is the time it takes between the dismissal of an individual from his formal job and when he forms his own business.

       Structural unemployment occurs when there is a mismatch between worker qualifications and job requirements or when jobs disappear because of structural changes in the economy like improvement of production methods, shifting consumer preferences, foreign competition, decline of certain industries, and discrimination. Structural unemployment poses the biggest challenge for an economy. **An example** of a structural change was the introduction of automated teller machines (ATMs) which reduced the number of job opportunities for bank tellers. **Another example** is the closure of some manufacturing industries in Zambia like Kapiri Glass left many people unemployed but with the skills specific to that industry.

(b)   Four negative effects of unemployment in Zambia include:

    (i) Loss of output: if labour is unemployed, the economy is not producing as much output as it could. Thus, total national income is less than it could be, because economic resources are not being fully used.

(ii) Loss of human capital, if there is unemployment; the unemployed labour will gradually lose its skills, because skills can only be maintained by working.

(iii) Increasing inequality in the distribution of income. Unemployed people earn less than employed people, and so when unemployment is increasing, the poor get poorer.

(iv) Social costs: unemployment brings social problems of personal suffering and distress, and possibly also increases in crime such as theft and vandalism.

(v) Increased burden of welfare payments: this can have a major impact on government fiscal policy, because governments will have to pay more in state benefits while collecting less through tax revenue.

(c)

(i) When consumer confidence rises, investment demand is likely to shift upward. One area in which this can be seen is through the rise of housing sales as consumers become more confident. This will in turn entail that builders would construct more new housing to meet this increased demand.

(ii) Investment demand would shift downward. This is because firms would purchase less durable equipment since such purchases would expand productive capacity and there is no need to expand productive capacity when utilization of existing capacity is declining.

(iii) A lower interest rate is associated with a higher level of investment, and vice versa. Holding other variables constant, we expect that at a lower rate of interest, more households are financially able to carry a mortgage, and a greater number of housing units will be demanded; and businesses are more willing and able to purchase durable equipment and to carry larger inventories.

SOLUTION SIX

(a) A flexible exchange rate is one which is determined through the free interaction of market forces and without any government intervention. The diagram below shows the depreciation of the Zambian Kwacha against the U.S. Dollar under a floating exchange rate regime.
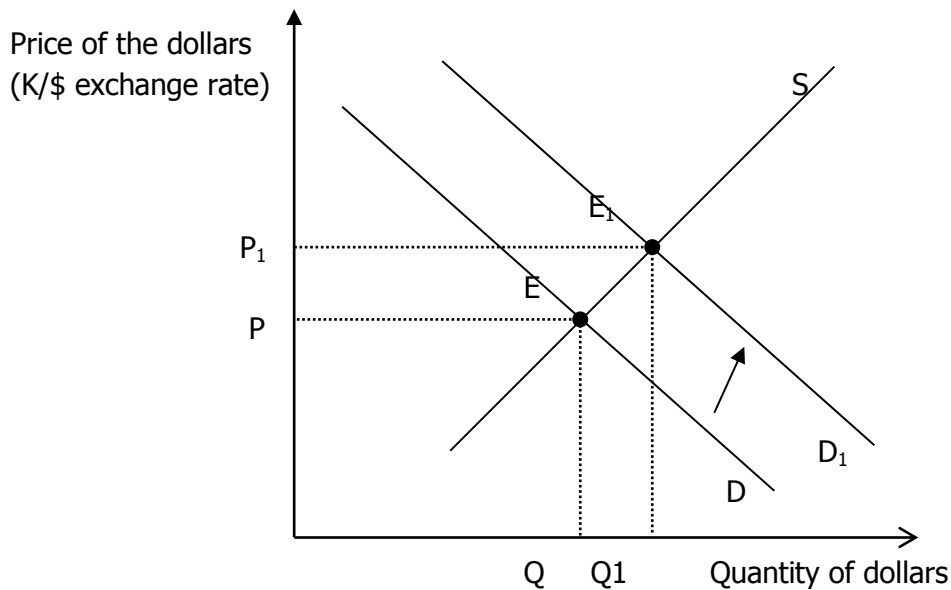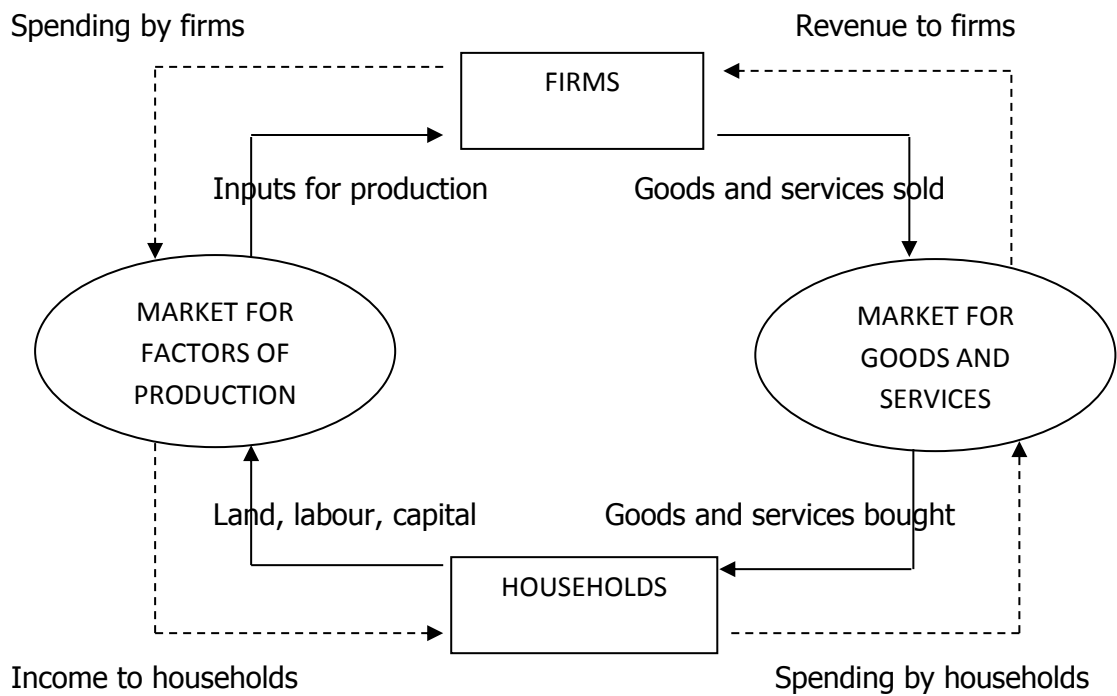
The Kwacha can depreciate if there is a shortage of the US dollar or if there is increased demand for the US dollar on the market. Initially, the market is in equilibrium at E where the exchange rate is at P and quantity of the currency at Q. In the case above, the demand for the U.S. Dollar increases maybe because domestic firms in the country purchase more U.S. capital goods. This leads to a shift in the demand curve from D to D1. This, in turn, causes the equilibrium price (or exchange rate) to increase from P to P1. The rise in the exchange rate implies that the dollar has become more expensive in term of the kwacha. The kwacha has thus depreciated while the dollar has appreciated.

(b)   The circular flow diagram below shows the interaction between households and firms in terms of the flow of goods and services and the monetary flows between them.

Households provide their factors of production to the factor market where firms can purchase them. The firms use these inputs to produce goods and services which they avail to the goods market for households to buy.

When firms purchase factors of production, this constitutes income to households i.e. wages, rent, interest, and profits. Households spend their income on goods and services and this represents revenue to firms.

Spending by firms — FIRMS — Revenue to firms

Inputs for production — Goods and services sold

MARKET FOR FACTORS OF PRODUCTION — MARKET FOR GOODS AND SERVICES

Land, labour, capital — Goods and services bought

Income to households — HOUSEHOLDS — Spending by households

(c) **Ease of saving:** Financial intermediaries provide convenient ways for a saver or the surplus economic unit to save money. The intermediary serves as an easier channel of funds for net savers to net borrowers.

Source of funds: They are a ready source of funds for the deficit economic unit.

Lender's capital is secure: Financially sound intermediaries provide security for the lenders who entrust them with their funds.

Aggregation: This means that intermediaries are able to pool up funds from savers to lend to borrowers who want to borrow large amounts which would be hard to find otherwise.

Risk transformation: Financial intermediaries minimise risk by absorbing the potential bad debts an individual saver may be exposed to if they were to lend to another individual.

Maturity transformation: Intermediaries bridge the gap between the preference of most lenders for liquidity and the preference of most borrowers for loans over a long period of time. It is the process of managing the different time preferences of savers and borrowers.

SOLUTION SEVEN

(a)
   (i)   AD = C + I + G + (X − M)
         AD = 15000 + 0.4Yd + 3000 + 4500 + [6000 − (1500 + 0.2Y)]
         AD = 15000 + 0.4(Y − 0.3Y) + 3000 + 4500 + 6000 − 1500 − 0.2Y
         AD = 15000 + 0.4(0.7Y) + 3000 + 4500 + 6000 − 1500 − 0.2Y
         AD = 27000 + 0.28Y − 0.2Y
         AD = 27000 + 0.08Y

   (ii) Y = AD at equilibrium
         Y = 27000 + 0.08Y
         Y − 0.08Y = 27000
         0.92Y = 27000
         Y = 29,347.83

   (iii) The increase in exports means that the AD function now becomes AD = 30 500 + 0.08Y. At equilibrium Y = AD, so the new equilibrium becomes:
         Y = 30500 + 0.08Y
         0.92Y = 30500
         Y = 33,152.17

         The change in equilibrium income is 33152.17 − 29347.83 = **3,804.34**

(b)   Hyperinflation is an extreme and accelerating rate of inflation. The main causes of hyperinflation originate from the monetary sector.
   - Hyperinflation is likely to occur when the government prints more money than an economy needs in order to finance its expenditure.
   - Another possible trigger of hyperinflation is an economic collapse in which output falls drastically and the amount of money in circulation either remains the same or rises.

         Both of the situations described above will give rise to an extraordinary price increase to clear the imbalance because there will be lots of money but few goods.

         Hyperinflation drives the economy into collapse
   - It renders the currency useless for trading purposes and people will opt to use other means of trading like the barter system.
   - The real value of savings and loans is eroded taking away the wealth of savers which results in failed businesses as there is little income to sustain them.
   - There will be massive shortages of essential goods and services in such an environment and people suffer.
   - In a panic to resuscitate the economy, government may use drastic measures like price controls, capital controls, and credit controls which further exacerbate the economic meltdown.

An economy which is in meltdown requires government intervention which will restore confidence by business and consumers as well as the international community.

- One way to restore such confidence is for the government to adopt a currency which is stable. They can allow the use of a foreign currency in place of the domestic one to conduct exchange until the hyperinflation is controlled.
- Another way would be to launch a new currency altogether. This new currency should have a fixed value for it to serve the purpose of stopping hyperinflation and restoring confidence.
- The government could also use other measures, such as, contractionary fiscal and monetary policies;
- In addition, wage controls and employment freeze can be other options.

END OF SOLUTIONS

DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 4: INFORMATION TECHNOLOGY AND COMMUNICATION
_____
WEDNESDAY 13 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
_____

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO sections:
    Section A: Ten (10) Compulsory multiple choice questions: Five (5) on Information
        Technology and five (5) on Communication.
    Section B: There are three (3) questions on **Information Technology**. Attempt
        any two (2) questions.
        There are also three (3) questions on **Communication**. Attempt any two
        (2) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

QUESTION ONE

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen

1.1   What is an attribute in the context of a relational database?

A. A relational table

B. A column of a table

C. A row in a table

D. A key field of a table   (2 marks)

1.2   A VDU has just sufficient video RAM to display 256 colours at a resolution of 800 X 600 pixels. The user wishes to display 65, 536 colours. What should the user do?

A. Increase the resolution to 1024 X 1024 pixels

B. Decrease the screen resolution to 320 X480 pixels

C. Use a larger screen

D. Specify that a smaller screen area is to be used?   (2 marks)

1.2   Which of the following TWO operating systems are commonly found on smart devices?

A. Linux and Windows

B. PC DOS and OS/2

C. Android and IOS

D. UNIX and UBUNTU   (2 marks)

1.4   Which of the following key combinations is equivalent to a paste operation?

A.   Ctrl + P

B.   Ctrl + V

C.   Ctrl + S

D.   Shift + P   (2 marks)

1.5   A point-of-sale (POS) system records transactions (sales and returns) on a transaction file which is processed each night after the store has closed. Which of the following data items will not be stored on a transaction records?

A. The transaction type

B. The price of the item

C. The quantity sold or returned

D. The item code   (2 marks)

1.6   Which one of the following sets of different communication patterns exist in most organisations?

A.   Wheel, star, Y and chain

B.   Star, wheel, circle and network

C.   Chain wheel,Y and circle

D.   Network, circle, U and chain   (2 marks)

1.7   Which of the following consists of a correct matching statement in an official letter?

A.   Dear Sir ---------- Yours sincerely

B.   Dear John ----------- Yours faithfully

C.   Dear Colleague --------- Yours faithfully

D.   Dear Rose ------------ Best regards.   (2 marks)

1.8   Which of the following causes communication break down?

    A.   Using simple Language

    B.   Having different perceptions

    C.   Taking note of non-verbal cues

    D.   Specifying the required information   (2 marks)

1.9   Which one of the following physiological changes are types of non-verbal communication?

    A.   Smiling, frowning and nodding

    B.   Looking away when talking to a person

    C.   Blushing, faster breathing and perspiring

    D.   Pitch, speed and tremors   (2 marks)

1.10   Which of the following statements best describes the term grapevine?

    A.   Communication along the corridors of an organization

    B.   Communication from the superior to the subordinate

    C.   Communication from the subordinates to superiors.

    D.   Communication among staff at the same level.   (2 marks)

[Total: 20 Marks]

SECTION B

This Section has two parts: 1. INFORMATION TECHNOLOGY AND

2. COMMUNICATION

1.   INFORMATION TECHNOLOGY

ATTEMPT ANY TWO (2) FROM QUESTIONS: TWO, THREE AND FOUR

QUESTION TWO

Spreadsheets are important tools for manipulating numerical information.

Required:

(a)   Briefly describe the meaning and significance of the following facilities of spreadsheet software:

      (i)   Relative and absolute cell references   (4 marks)

      (ii)   Cell content filter   (2 marks)

(b)   Describe each of the following facilities offered by a Word Processing Software and

      explain how it contributes to the efficient production of quality documents.

      (i)   editing   (3 marks)

      (ii)   spell and grammar checking   (3 marks)

(c)   (i)   Briefly describe what is meant by the term CD-ROM   (2 marks)

      (ii)   Give three (3) advantages CD-ROM has over floppy disks as a secondary storage medium.   (3 marks)

(d)   Any computer system should provide adequate controls for the security of the data it uses to process and these controls can be carried out by the user.

      List any three (3) controls which can be applied to each part of the system.
(3 marks)

[Total: 20 Marks]

QUESTION THREE

You work for a small organisation that has eight stand-alone PCs, some in accounts department, some in general administration and some in the sales department. There is regular communication between all departments. The company employs around 30 staff in total. None of them has anything more than basic computer knowledge and doesn't know the benefits of the 'client-server' approach.

Required:

(a)   State five (5) advantages of client/server computing?   (10 marks)

(b)   List and explain the five (5) types of validation checks that can be used in the sales order processing system.   (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a)   Identify two (2) business environments most suitable for each of the following types of computer systems.

        (i)   Mainframe computer   (2 marks)

        (ii)   Super computer   (2 marks)

(b)   Distinguish between Read Only Memory (ROM) and Programmable Read Only Memory (PROM)   (4 marks)

(c)   Give two (2) situations when a disk may require formatting.   (4 marks)

(d)   List three (3) types of cell contents in a spreadsheet.   (3 marks)

(e)   Give three advantages and two disadvantages of using spreadsheets.   (5 marks)

[Total: 20 Marks]

2.   COMMUNICATION

ATTEMPT ANY TWO (2) FROM QUESTIONS: FIVE, SIX AND SEVEN

QUESTION FIVE

Public speaking is the process of addressing a group of people in a structured, planned way in order to inform or influence them.

Required:

Explain how you would assist someone who wishes to prepare and deliver a presentation on the new accounting software package that you are familiar with, using the ten (10) key steps that you learnt in the course of your studies**.**   (20 marks)

QUESTION SIX

The accounts department offices are   undergoing renovations for a period of three months. This means that staff is expected to work from somewhere else within your work promises. Therefore staff is expected to prepare themselves as they get relocated to temporal offices. All staff has been assured that all electronic forms of communication will still operate smoothly during the time renovations will be done.

Required:

(a)   Write a Memorandum to all staff in the accounts department notifying them about the relocation of accounts offices within the work promises   (16 marks)

(b)   Explain the four (4) main features of a Memo.

        (i)   To
        (ii)   From
        (iii)   Date
        (iv)   subject   (4 marks)
                                                                [Total: 20 Marks]

QUESTION SEVEN

You have recently graduated with a Diploma in Accounting and saw an advertisement in the Times of Zambia for a Job vacancy as an Assistant Accountant. However you need to work on your curriculum vitae to accompany your job application letter.

Required:

(a)   Prepare your curriculum vitae that would capture your potential employer's interest.

                                                                        (14 marks)

(b)   Briefly explain the contents of the following parts of a business letter

    (i)   Opening paragraph

    (ii)   Middle paragraph

    (iii) Last paragraph   (6 marks)
                                                    [Total: 20 Marks]

END OF PAPER

D4: INFORMATION TECHNOLOGY AND COMMUNICATION SOLUTIONS

SECTION A:

SOLUTION ONE

1.1	B	A column of a table
1.2	A	Increase the resolution to 1024 X 1024 pixels
1.3	C	Android and IOS
1.4	B	Ctrl + V
1.5	B	The price of the item
1.6	A	Communication along the corridors of an organization
1.7	D	Dear Rose ------------ Best regards.
1.8	B	Having different perceptions
1.9	C	Blushing, faster breathing and perspiring
1.10	A	Document used for internal communication only

SOLUTION TWO

a)

i) **Spreadsheets**

Relative and absolute references – one of the main functions of spreadsheets is to allow formulae to be written into cells that use the contents of other specific cells in those formulas. The normal method of referencing between cells is to use a relative reference. This means that the formula refers to a specific cell, which could be two cells left, and one cell up from the current cell. So cell D3 would have a reference to cell B2 (two columns left and one row up). If that formula is copied to another cell, then the same relative reference is used to determine which cell is to be used in the new formula. So copying the formula to cell E6 will mean that the cell C5 is used in the formula.

In some formulae, one specific cell has to be referred to, so even if the formula is copied, the same absolute cell reference is needed in the new formula. If the absolute reference is required, then $ are placed before the cell row and column reference.

ii) Cell Filter – function of the spreadsheet which allows the user to limit the number of data displayed in the workbook cells based on the filter selection. The filter function is useful when there is a large amount of data to work with where the use wants to restrict the data to appear on the screen.

b) Facilities of word processors

i)   Editing facilities

Word processors allow the text in a document to be amended, or edited, without having to re-type the whole document. E.g. individual words or sentences can be deleted; individual words replaced or new words and sentences added. Editing facilities make document production efficient because existing documents can be amended rather than retyped. Quality documents will be produced because amendments can be made to improve it and making it more presentable and understandable for the recipient.

ii)   Spell and Grammar checking

A spell-check checks the work in a document against an electronic dictionary and brings potentially misspelt words to the attention of the user. Similarly, a grammar check brings examples of poor grammar to the attention of the user. The user can then decide whether to amend the spelling or grammar in a document before it is sent to the intended recipient.

The provision of spell and grammar checking makes document production efficient because the computer can check documents much faster than any human proof-reader.

c)   (i) CD-ROM stands for Compact Disk – Read Only Memory, which is a storage device used with computers. A data on CD-ROM cannot be overwritten and normally is used to distribute software by software suppliers and vendors.

(ii) The advantages of a CD over floppy disk as a storage medium include:

i)   Larger storage capacity. A CD can hold up to 700MB of data compared to 1.44MB on a standard floppy disk

ii)   A CD tends to be more robust than a floppy disk. The surface can be cleaned with a non-abrasive cleaner; attempting to clean a floppy disk will normally destroy the data on it.

iii) Data storage on CD is accessed quickly because of their mechanical nature of using laser lights.

d) Controls which can be applied to each part of the computer system
- Hardware control
- Software control
- Data control
- Administrative control

SOLUTION THREE

a) i) Shared programs and data – Program and data files held on a file server can be shared by all the PCs in the network. With the stand alone computer, each computer has its own data files and there is unnecessary duplication of data. A system where everyone uses the same data will help to improve data processing, communication and decision making

ii**) Shared work-loads** – each PC in a network can do the same work. With stand-alone PCs, A does job 1, B does job 2, C does job 3 and so on. In a network, any PC (A,B or C) could do any job (1,2 or 3). This means that in a peak period for job 1, say, two or more people can share the work without having to leave their own desk

iii) Scalability – A client-server system is highly scalable, when you need more computers, you simply add more clients or another server

iv) Shared equipment – e.g. five computers might share a single printer, whereas with stand-alone computers, each computer would have to be given its own separate printer, or else not have access to one at all**.**

v) Communication and time management – LAN can be linked up to the office communication network, thus adding to the processing capabilities in an office. Electronic mail can be used to send messages, memos and letters from computer to computer.

b)   **Validation checks**

Validation checks are checks performed by the computer on data being input to the computer, e.g. the stock code being entered

Validation checks include

i. Existence check

An existence check ensures that data is valid for that particular system. The computer program will check that the stock code exists by looking up or comparing that number with valid numbers in a reference or master file.

ii. Format Check

A format check ensures that the contents and size of the data being entered into one field is correct, e.g. stock code is always numeric so the computer will ensure that only numbers have been entered into this field.

iii. Check digit check

To avoid keying errors, the last digit of the code is based on a mathematical calculation of the earlier numbers. When the code is input, the computer re-performs this calculation and compares the result with the check digit entered.

iv. Completeness check

A completeness check ensures that all the fields necessary to complete an order or other similar document have some inputs. If there is no input then an error message is displayed

v. Limit checks

Either upper or lower limit given

vi. Range checks

Both Upper and lower limit set

SOLUTION FOUR

a) i) Mainframe – Main frame computers are large in size with huge processing power. The most common business environment are large organisations such as banks and insurance companies

iii) Supercomputer – these are large in size and have high speed processing capabilities in millions of instruction per nano seconds. There mostly used in research and weather forecasting.

b) Distinguish between Read Only Memory (ROM) Programmable Read Only Memory (PROM)

Read Only Memory is a memory which is nonvolatile which means the information and data stored on this memory cannot be overwritten and it is permanently embedded on the memory chip. Data on ROM is burned on the chip at the time manufacture. PROM also contains permanent data but the chip is bought blank and the user burns the data using ultra violet light. Once the data has been written it becomes permanent.

c) **Give two situations when a disk may require formatting**
    i) New disk or
    ii) infected or inefficient disk

d) **List three types of cell contents in a spreadsheet**
    i)   Text
    ii)   Numbers
    iii)   Formulae

e) **Give three advantages and two disadvantages of using spreadsheets**
    Advantages
    i)   Allow easy graphical representation of data
    ii) Easy to learn and use
    iii) Make the calculation and manipulation of data of data easier and quicker
    iv) Enable the analysis, reporting and sharing of financial information
    iv)   Easily show the results of using different values and assumptions

    Disadvantages
    i) As good as original design-Garbage In Garbage Out (GIGO)
    ii) Formulae hidden from sight-Underlying logic not obvious
    iii) Presentations may make reports appear infallible
    iv) Research shows that a high proportion of large models may contain critical errors
    v) a database may be more suitable to use with large volumes of data**.**

SOLUTION FIVE

There are a number of steps to follow when preparing and delivering a presentation.

Step 1 Decide on your main purpose of your presentation. What do you want to achieve? what do you want the audience to remember or do afterwards? Ensure that you concentrate on the main purpose of your message in the presentation.

Step 2 You may need pictures, or stories to persuade and convince the audience, therefore there is need to plan the best way of putting your message across to people

Step 3 Ensure that you use a successful approach including the three structural elements (i.e. Provide an interesting introduction that captures the audience's attention, provide details of your presentation in your main body and then a conclusion which summarises the whole presentation)

Step 4 Prepare   draft notes in point form. However, have notes with you so that you cover all the key points in a logical manner. Do not stick to your notes. Ensure that you are conversational in your presentation.

Step 5 Consider the use of visual aids such as pictures, samples, and diagram power point. If you use PowerPoint, do not have too many slides and avoid writing long whole sentences. Information must be presented in point form with power point.

Step 6 Improve on the dull patches of your presentation by rehearsing and timing it. Ask a colleague to be your audience so that inconsistencies and other problems are polished up.

Step 7 Ensure that you are loud enough to be heard. Your voice projection should be clear.

Step 8 Consider providing handouts to your audience. This will allow the audience to concentrate on the explanation without having to take notes at the same time.

Step 9 Allow time for questions from the audience and ensure that you answer them correctly

Step 10 As you make your presentation, be polite, friendly and cheerful. Maintain fair eye contact and do not go beyond your time limit.

SOLUTION SIX

(a) Mutantwe and company

Memorandum

Ref:

Date:

To: All Accounts staff

From: Assistant Accountant

Subject: **Rehabilitation of the accounts offices**

This serves to inform you that the main accounts office will be rehabilitated for the next three (3) months. This means that staff will not be able to work from the current offices for the next three months

Arrangements have been made for staff to be able to work on the 3rd floor, former board room during that period. Ensure that you pack all the personal accessories that you wish to take along with you to the relocated offices.

For any further information you are free to contact the undersigned person.

Take this information as official notification.

Writers signature

Mr P. Nyoni

(b)

TO………………………..It states where the memo is going or intended recepient.

FROM…………………….It states where the is from.

Date------------------The day when the memo was written.

SUBJECT……………….It states what is being talked about.

SOLUTION SEVEN

(a) CURRICULUM VITAE

Curriculum vitae a "CV", as it is commonly known, has no strict format, But its presentation must be logical, brief and complete with all relevant information about an individual. Its purpose is to alert a potential employer about an individual's work experience, his/her qualifications, and suitability for the job position. Most CVs are laid out as follows:

CURRICULUM VITAE

NPK and Sons Company.

P. O. Box 31243

Lusaka

Telephone:

Email:

PERSONAL DETAILS (personal details are very important and must not be omitted when writing a curriculum Vitae)

Name:

Age:

Nationality:

Marital status:

Religion:

National Registration No:

EDUCARIONAL QUALIFICATIONS: State the university – college or schools you attended. Indicate start & finish dates, grades obtained if possible e.g. distinction or merit etc

PROFESSIONAL QUALIFICATIONS: State the institution where you obtained your area of expertise, the start and finish date and grades obtained if possible.

WORK EXPERIENCE: in this section of the CV you will include information about all the jobs you have had since leaving education. Ensure that it is presented in chronological order, so that the prospective employer can see the logical progression of your career so far. Indicate name of organisation, the year you started work or engagement and separation dates. Indicate duties or responsibilities held

ABILITIES & SKILLS: State what you are able to do as an individual, not necessarily your area of expertise

AWARDS: State the type of awards you won, when and where

SPECIAL PROJECT OR RESEARCH WORK: State the institution, the objectives of the project, the results of the project & when the research was done (start & finish dates)

REFERENCES: State the names and addresses of at least references. This should be prominent people who can recommend you for a job e.g. your former employer or clergy man

Other information: this is where you have the opportunity to include relevant information that will show the sort of person you are. Here you will include your various interests and hobbies, together with any other experience you may have had that will be relevant to your application.

(b)

(i) **The opening paragraph**

This provides an introductory part of the message in a letter so that the recipient has the picture of what follows in the letter.

(ii) **Middle paragraph gives details of message**

This is the main message in a letter. It provides details of the message. The message needs to be in a logical manner, clear and complete.

(iii) **Last paragraph**

The last paragraph is usually the conclusion of the letter. It draws the main points to one central idea and includes what action is required.

END OF SOLUTIONS

DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 5: COST ACCOUNTING
_____
TUESDAY 12 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
_____

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO sections:
    Section A: One (1) Compulsory question.
    Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

SECTION A

Attempt ALL ten (10) multiple choice questions in this Section.

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

QUESTION ONE

1.1   Which of the following is the 'correct' definition of Cost Accounting?

   A. It is a control technique that reports variances by comparing actual costs to pre-set standards so facilitating action through management by exception.

   B. It is 'a means of attributing overhead to a product or service, based for example on direct labour hours, direct labour cost or machine hours'.

   C. It is the 'gathering of cost information and its attachment to cost objects, the establishment of budgets, standard costs and actual costs of operations, processes, activities or products; and the analysis of variances, profitability or the social use of funds'.

   D. It is the process of collecting, recording, summarizing and communicating financial information.

(2 marks)

1.2   A firm of Chartered Accountants in Lusaka has four Sections namely, Audit, Tax, Accounting and Secretarial.   The Audit section wishes to establish a method of predicting its total costs in each quarter of the year. The following past two quarterly costs have been recorded at two activity levels.

	Number of Audits	*Total Costs*
	(A)	*(TC)*
Quarter 1	22	K83,400
Quarter 2	30	K105,600

The total cost structure for a typical quarter could be represented as:

   A. TC = K22,350 + K2,775A

   B. TC = K22,200 + K2,794A

   C. TC = K13,200 + K2,775A

   D. TC = K10, 425 + K2,794A

(2 marks)

Use the information given below for November 2017 to answer Questions 1.3 and 1.4.

Balances as at 1 November 2017

	K'000
Raw materials control	10
Work in progress control	15
Finished goods control	18

Transactions for November

	K'000
Materials received from suppliers on credit	50
Materials issued to production	42
Materials issued to production service departments	5
Production indirect wages incurred	13
Wages and salaries paid: direct wages	28
Production completed and transferred to finished goods store	90
Production cost of goods sold	97
Sales on credit	145

1.3   The closing Balance of the Raw Materials Control on 30 November is:

    A. K15,000

    B. K13,000

    C. K10,000

    D. K18,000

        (2 marks)

1.4   The opening balance in the Finished Goods Control Account on 1st December 2017 is:

    A. K97,000

    B. K90,000

    C. K18,000

    D. K11,000

        (2 marks)

Family Supermarkets (FS) is one of the stores at the newly constructed Mulungushi Mall in Kabwe. The data at 31 December 2017 is as follows:

	Soft Drinks	Fresh Produce	Packaged Foods
Number of orders placed	144	336	144
Number of deliveries received	120	876	264

The total support costs related to ordering activities were K62,400 whilst the number of purchase orders received amounted to 624. On the other hand, the total support costs associated with physical delivery and receipt of merchandise were K100,800 and the number of deliveries were 1,260. Family Supermarkets (FS) allocates store support costs to product lines using an ABC system.

1.5   The total ordering costs for soft drinks and fresh produce are:
   A. K28,800
   B. K33,600
   C. K48,000
   D. K43,200

(2 marks)

1.6   The best apportionment of the delivery costs amongst the product range is:

	Soft Drink	Fresh Produce	Packaged Foods
A.	K9,600	K70,080	K21,120
B.	K21,120	K70,080	K9,600
C.	K70,080	K21,120	K9,600
D.	K9,600	K21,120	K70,080

(2 marks)

1.7 In the assembly of Hugo Buses in Zambia by the Chinese company, which one of the following is NOT a direct cost?

A. Cost of tyres used in assembling the buses
B. Cost of labour associated with the assembly process
C. The material costs of making the passenger chairs inside the bus
D. Power costs at the Lusaka plant.

(2 marks)

1.8 The service industry is becoming more popular and relevant in modern economic environments. Which one of the following is a suitable cost unit for Zambia Railways Limited freight service?

A. Passenger/Kilometre
B. Tonne/Kilometre
C. Number of tones
D. Fuel/Kilometre

(2 marks)

1.9 In a marginal costing system, the formula 'Sales – Variable Costs' is used to calculate:

A. Gross Profit
B. Net Profit
C. Contribution
D. Over or Under absorption of overheads

(2 marks)

1.10 The basic day-rate for workers at a factory in Ndola is K14 per hour and overtime is paid at time-and-a-quarter. How much will Mutale Chanda be paid in total if he works eight hours of overtime on a particular day?

A. K112
B. K140
C. K168
D. K147

(2 marks)

[Total: 20 marks]

SECTION B

There are five (5) questions in this section. Attempt any four (4) questions.

QUESTION TWO

Makululu Ltd, a company located in Ndola's light industrial area, manufactures plastic containers for the pharmaceutical and cosmetic industries. The plant, in which the company undertakes all of its production, has two production departments – 'Cutting' and 'Shaping', and two service departments –'Stores' and 'Maintenance'.

The information provided below has been extracted from the company's budget for the next financial year which ends on 31 December 2012:

Allocated Production Overhead Costs	**K**
Cutting Department	140,000
Shaping Department	160,000
Stores Department	35,000
Maintenance Department	28,000

Apportioned Production Overheads	**K**
Factory rent	525,000
Factory building insurance	70,000
Plant & machinery insurance	39,000
Plant & machinery depreciation	58,500
Canteen subsidy	150,000

The following additional information is also provided:

	Cutting Dept	**Shaping Dept**	**Stores Dept**	**Maintenance Dept**
Floor area (square metres)	18,000	12,000	3,000	2,000
Value of Plant & Machinery (K)	300,000	50,000	25,000	15,000
Number of stores requisitions	1,000	500		
Maintenance hours required	2,700	2,000	300	
Number of employees	34	60	4	2
Machine hours	12,000	2,200		
Labour hours	9,000	15,000		

Required:

(a) Prepare an overhead analysis sheet based on the above information, clearly state the basis used for any apportionments.   (12 marks)

(b) Re-apportion the service department costs and calculate the most appropriate overhead rate for each department (Rate should be calculated to two decimal places).

(5 marks)

(c) During the year ended 31 March 2012, the following hours were actually worked and the following actual costs actually incurred:

Department	Labour Hours	Machine Hours	Overhead costs Incurred
Cutting	8,000	14,000	K531,500
Shaping	16,000	3,000	K405,500

Calculate the over/under absorbed overhead for each of the two departments for the year ended 31 March 2012.

(3 marks)
[Total: 20 marks]

QUESTION THREE

Lushomo Ltd produces and sells chemical XYZ. The standard cost per unit of XYZ as follows:

Direct material	7.5ltr @ K4.5 per litre
Direct labour	2.5 hours @ K6 per hour
Variable overheads	2.5 hours @ K1.5 per hour

The monthly budgeted fixed overhead were K1,500 for 2,000 budgeted production hours. Lushomo Ltd is expected to produce and sell 10,000 units.

The actual results for the month were as follows:

Production and sales volume	9,200 units
Material 72,000 litres costing	K270,000
Labour hours 27,500 hours costing	K137,550
Variable overheads	K45,000
Fixed overheads	K25,300

Required:

(a)   Calculate the following variances:

      (i)   Material price
      (ii)   Material usage
      (iii)   Labour rate
      (iv)   Labour efficiency
      (v)   Variable overhead expenditure
      (vi)   Variable overhead efficiency
      (vii)   Fixed overhead expenditure
      (viii) Fixed overhead volume   (8 marks)

(b)   List any two (2) causes of labour idle variance.   (4 marks)

(c)   Explain four (4) types of standards that can be used in organisations.   (8 marks)

[Total: 20 marks]

QUESTION FOUR

The following information relates to the inventory of raw material D and work-in-progress of the only product manufactured by **KUKE** Plc

Raw Material D

01 August	Received	1,000kg @ K 9.50 per kg
15 August	Received	900kg @ K 11.00 per kg
19 August	Issued to production	800 kg
20 August	Received	600 kg @ K 10.50 per kg
26 August	Issued to production	1,200 kg

Work-in-Progress at 31 August

600 units which are 40% complete

400 units which are 60% complete

300 units which are 80% complete

There is no opening stock of raw material D or work-in-progress at 1 August.

Completed finished goods are valued at K30.50 per unit.

Required:

(a) Prepare a statement showing the amount charged to production and the total value of inventory of raw materials held after each inventory transaction (rounding to two decimal places), using each of the following methods of inventory costing:

  (i)   First in, First Out (FIFO)
  (ii)   Last In, First Out (LIFO)
  (iii) Weighted Average Cost(AVCO)

(12 marks)

(b) Outline the advantages and disadvantages of each of the above three (3) methods of inventory costing.   (6 marks)

Work-in-Progress at 31 August
600 units which are 40% complete
400 units which are 60% complete
300 units which are 80% complete
There is no opening stock of raw material D or work-in-progress at 1 August.
Completed finished goods are valued at K30.50 per unit.

(c) Calculate the value of the company's inventory of work-in-progress at 31 August.

(2 marks)
[Total: 20 Marks]

QUESTEION FIVE

The following information relates to Maximax Ltd. It is a manufacturing business that is considering the introduction of a piece-work incentive scheme in one of its departments, which has 6 employees.

Current Payroll
Basic working week   38 hours
Over-time premium   20% of normal pay grade.
Normal grade A pay rate is   K 22 per hour.
Normal grade B pay rate is   K 18 per hour.

Employee	Normal Hours Worked	Normal Pay Grade	Normal Units Produced
1	41	A	170
2	44	A	170
3	40	B	150
4	38	B	150
5	38	B	160
6	45	A	180

Piecework Incentive Scheme Proposal

Under the proposed incentive scheme, the standard time allowance would be 20 minutes per unit. The piecework rate would be based on grade A labour rates, with a standard piecework enhancement of 6%. All employees would receive the same piecework rate.

Required:

(a)   Outline the purpose of an incentive scheme.   (5 marks)

(b)   Calculate the normal pay due to each employee based on the current payroll terms.
                                                                                       (5 marks)

(c)   Calculate the standard piecework rate on the basis of the proposed incentive scheme.

                                                                                       (5 Marks)

(d)   Calculate the normal pay due to each employee under the terms of the proposed incentive   scheme.   (5 marks)

[**Total: 20 Marks**]

QUESTION SIX

(a)   The Cost Clerk of Nayo Nayo Ltd collated the following company information:

Description	Cost (K)	Description	Cost (K)
Direct materials	50,000	Consumable stores	1,250
Direct labour	15,000	Manager's Salary	2,500
Wages of foreman	1,250	Directors' fees	625
Electric power	250	Office Stationery	250
Factory lighting	750	Telephone Charges	62.50
Office lighting	250	Postage and Telegrams	125
Storekeeper's wages	500	Salesmen's salary	625
Oil and water	250	Travelling expenses	250
Rent: factory	2,500	Advertising	625
Rent: Office	1,250	Warehouse charges	250
Repairs and renewals:		Sales	94,750
Factory plant	1,750	Carriage outward	187.50
Transfer to reserves	500	Dividend	1,000
Discount on shares written off	250		
Depreciation:			
Office premises	625		
Factory Plant	250		

Required:

Prepare an operating statement clearly highlighting the following:

(i)   Prime cost
(ii)   Factory cost
(iii)   Cost of production
(iv)   Cost of sales
(v)   Profit   (15 marks)

(b)   Define the following terms:

(i)   Cost object
(ii)   Cost unit
(iii)   Cost centre
(iv)   Revenue centre
(v)   Profit centre   (5 marks)
                                                                [Total: 20 marks]

END OF PAPER

DA 5: COST ACCOUNTING SOLUTIONS

SECTION A

SOLUTION ONE

1.1 C

1.2 A

	Number of Audits (A)	Total Costs (C) K
High	30	105,600
Low	22	83,400
	8	22,200

Variable cost per audit = K22, 200/8 audits = K2, 775

At 30 Audits	K
Variable Costs (30 audits @ K2, 775)	83,250
Fixed Costs	22,350
Total Costs	105,600

1.3 B

Raw Material Control

	K'000		K'000
Balance b/f	10	Work In Progress	42
		Production Overhead	5
Accounts Payable	50	Balance c/f	13
	60		**60**

1.4 D

Finished Goods Control

	K'000		K'000
Balance b/f	18	Cost of sales	97
Work In Progress	90	Balance c/f	11
	108		108

1.5 C

Cost Driver Rate for Order Activities
= 62,400/624 Orders
= K100 per order

		Soft Drinks	Fresh Produce
: . Order Costs			
(144:336) @K100 per order		K14,400	K33,600
Total K48,000			

1.6 A   Cost Driver Rates for Delivery Activities
= K100,800/1,260 deliveries
= K80 per delivery

	Soft Drinks	Fresh Produce	Packaged Foods
Delivery Costs (120:876:264) @K80 per Delivery	9,600	70,080	21,120

1.7 D

1.8 B

1.9 C

1.10   B

Basic pay (8hrs @ K14)	112
Over Time (8hrs @K3.5	28
Gross Pay	**140**

SECTION B –SOLUTIONS

SOLUTION TWO

(a) An overhead Analysis Sheet

Nature of Cost	Basis of App	Total Dept K'000	Cutting Dept K'000	Shaping Dept K'000	Stores Dept K'000	Maint Dept K'000
Allocated	N/A	363	140	160	35	28
Apportioned						
Rent	Flr Area	525.00	270.00	180.00	45.00	30.00
Buildings Ins	Flr Area	70.00	36.00	24.00	6.00	4.00
P&M Ins	Value of P&M	39.00	30.00	5.00	2.50	1.50
P&M Dep'n	Value of P&M	58.50	45.00	7.50	3.75	2.25
Canteen	# of employs	150.00	51.00	90.00	6.00	3.00
		1,205.50	572.00	466.50	98.25	68.75

(b) Re-apportionment of service department's overheads& Calculation of OARs

Nature of Cost	Basis of App	Total	Cutting Dept K	Shaping Dept K	Stores Dept K	Maint Dept K
		1,205,500	572,000	466,500	98,250	68,750
Maint Costs	Maint Hrs		37,125	27,500	4,125	68,750)
Stores Costs	S/Requests		68,250	34,125	(102,375)	0
			677,375	528,125	0	0

Overhead Absorption Rates

Cutting Dept = 677,375/12,000 machine hours = K56.45 per machine hour

Shaping Dept = K528,125/15,000 labour hours = K35.21per labour hour

(c) Calculation of over/under absorbed overheads

Cutting Dept

	K
Actual overheads	531,500
Absorbed Overheads (14,000 x K56.45)	790,300
Over Absorbed	258,800

Shaping Dept

Actual Overheads	405,500
Absorbed Overheads (16,000x K35.21)	563,360
Over absorbed	**157,860**

SOLUTION THREE

a.

Material	Standard			Actual		
(K)	Quantity	Rate	amount (K)	Quantity	Rate	Amount
A	30,000	10	300,000	35,000	9	315,000
B	40,000	5	200,000	42,000	6	252,000
C	56,000	6	300,000	53,000	7	371,000
	120,000		800,000	130,000		938,000

Material Cost Variance (MCV) =   Standard cost for actual output – Actual quantity

=   K800,000 – K938,000

K138,000 Adverse

Material Price Variance (MPV) =   Standard price – Actual price

A=   (10 – 9) x 35 = K35,000 (F)

B =   (5 – 6) X 42,000 = K42,000 (A)

B =   (6 – 7) X 53,000 = <u>K53,000 (A)</u>

K60,000 (A)

Material Usage Variance (MUV) =   SQ for actual output – AQ) X Standard price

A =   (30,000 – 35,000) x 10 = K50,000 (A)

B =   (40,000 – 42,000)   x 5   = K10,000 (A)

C =   (50,000 – 53,000) x 6 =   <u>K18,000 (A)</u>

K78,000 (A)

Material Mix Variance (MMV)   =   (Revised SQ – AQ) x Standard price

Workings:

1. Revised Standard Quantity = (Total actual weight of mix x Standard Quantity)
                                    Total standard weight of mix

$$A = \frac{130,000}{120,000} \times 30,000 = K32,500kg$$

$$B = \frac{130,000}{120,000} \times 40,000 = \frac{K130,000}{3} kg$$

$$C = \frac{130,000}{120,000} \times 50,000 = \frac{K162,500}{3} kg$$

Material Mix Variance (MMV) = (Revised SQ – AQ) x Standard price

A= (K32,500 – 35,000) x K10   =   K25,000 (A)

B = $\frac{(K130,000 – 42,000)}{3}$ x K5   =   K6.667 (F)

C = $\frac{(K162,500 – 53,000)}{3}$ x K6   =   K7,000 (F)

                                    Total   =   K11,333 (A)

b. The labour (wage) rate variance is determined by the price paid for labour and the quantity of labour used. The price (labour rate) variance is calculated by comparing the standard price per hour with the actual price paid per hour. Labour efficiency variance represents the quantity variance for direct labour. The quantity of labour that should be used for the actual output is expressed in terms of standard hours produced. The labour efficiency variance is the difference between the actual hours worked and the standard hours required for the same task.

SOLUTION FOUR

A (1)

FIFO METHOD	RECEIVED			ISSUED			BALANCE		
DATE	Qty(KG)	Unit Price	Total	Qty	Unit Price	Total	Qty	Unit Price	Total
1-Aug	1,000	9.5	9,500			-	1,000	9.5	9,500
15-Aug	900	11.0	9,900			-	1,900		19,400
19-Aug			-	800	9.5	7,600	1,100		11,800
20-Aug	600	10.5	6,300			-	1,700		18,100
26-Aug			-	200	9.5	1,900			
			-	900	11.0	9,900			
			-	100	10.5	1,050			
			-			12,850			
			-			20,450	500	10.5	5,250

A(11) LAST IN FIRST OUT(LIFO) METHOD

LIFO METHOD	RECEIVED			ISSUED			BALANCE		
DATE	Qty(KG)	Unit Price	Total	Qty	Unit Price	Total	Qty	Unit Price	Total
1-Aug	1,000	9.5	9,500			-	1,000	9.5	9,500
15-Aug	900	11.0	9,900			-	1,900		19,400
19-Aug			-	800	11.0	8,800	1,100		10,600
20-Aug	600	10.5	6,300			-	1,700		16,900
26-Aug			-	600	10.5	6,300			
			-	100	11.0	1,100			
			-	500	9.5	4,750			
			-			12,150			
			-			20,950	500	9.5	4,750

A (111)-WEIGHTED AVERAGE COST METHOD - (AVCO)

AVCO	RECEIVED			ISSUED			BALANCE		
DATE	Qty(KG)	Unit Price	Total	Qty	Unit Price	Total	Qty	Unit Price	Total
1-Aug	1,000	9.5	9,500			-	1,000	9.5	9,500
15-Aug	900	11.0	9,900			-	1,900	10.2	19,400
19-Aug			-	800	10.2	8,168	1,100	10.2	11,232
20-Aug	600	10.5	6,300			-	1,700	10..31	17,532
26-Aug				1,200	10.3	12,372			
						12,372			
			-			20,540	500	10.31	5,155

B. Advantages of the methods

FIFO –Advantages

1. Actual costs systems-unrealised profit or loss are eliminated
2. Encourages good store keeping practices by issuing oldest inventory first
3. Inventory Valuations comprises of the most recent valuation

FIFO- Disadvantages

1. Not suitable in times of inflations as it under state products costs and overstates profit
2. Cam be administratively clumsy
3. Cost Comparisons of batches is difficult
4. It has limited decision making uses

LIFO-Advantages

1. It uses actual cost system
2. Up to date relevant market costs charged to production
3. Realistic costing approach useful in some decision making scenarios

LIFO-Disadvantages

1. It can distort profit as inventory is valued at oldest prices
2. Not acceptable to tax authorities
3. It can be administrative clumsy as purchase batches only partially charged to production.

Weighted Average –Advantages

1. Relatively straight forward administratively
2. Moderate costs are charged to inventory valuations and production charges
3. Useful for cost comparison exercises

Weighted Average –Disadvantages

1. Although realistic, it is not based on actual meaningful costs

(C) Work in progress at 31st August

Calculation of equivalent units	EU
600 units at 40%	240
400 units at 60%	240
300 units at 80%	240
	720 units @ K30.50 per unit=K21,960

SOLUTION FIVE

(A). Incentive Schemes are a means of remuneration which relate payment to output. The aims of such schemes are to benefit employees by providing an opportunity to increase earnings, while encouraging performance and providing for increased productivity, which may result I reduced cost per unit.

Incentive Schemes can be based upon individual performance or aimed at incentivising groups of employees.

Incentive Schemes should be based on efficient working methods following comprehensive work studies and may be financial or non-financial in nature.

(B)   NORMAL PAY ON CURRENT PAYROLL TERMS

EMPLOYEE	HOURS	RATE/HOUR	TOTAL(K)
EMPLOYEE 1	38	22	836
	3	26.4	79.2
			915.2

EMPLOYEE	HOURS	RATE/HOUR	TOTAL(K)
EMPLOYEE 2	38	22	836
	6	26.4	158.4
			994.4

EMPLOYEE	HOURS	RATE/HOUR	TOTAL(K)
EMPLOYEE 3	38	18	684
	2	21.6	43.2
			727.2

EMPLOYEE	HOURS	RATE/HOUR	TOTAL(K)
EMPLOYEE 4	38	18	684
			0
			684

EMPLOYEE	HOURS	RATE/HOUR	TOTAL(K)
EMPLOYEE 5	38	18	684
			0
			684

EMPLOYEE	HOURS	RATE/HOUR	TOTAL(K)
EMPLOYEE 6	38	22	836
	7	26.4	184.8
			1020.8

C **Standard Incentive Piecework rate**

Standard Weekly Pay (Grade A)	K	836
Standard Weekly Production	38 hour =2,280 Minutes/20 Min=114 units	
Basic Piecework rate	K	7.33 per unit
Incentive Element 6%		0.44
Standard Incentive Piecework rate	K	7.77

(D) NORMAL PAY UNDER PROPOSED INCENTIVE SCHEME

EMPLOYEE	UNITS	RATE/UNIT	TOTAL(K)
EMPLOYEE 1	170	7.77	1,320.90
EMPLOYEE 2	170	7.77	1,320.90
EMPLOYEE 3	150	7.77	1,165.50
EMPLOYEE 4	150	7.77	1,165.50
EMPLOYEE 5	160	7.77	1,243.20
EMPLOYEE 6	180	7.77	1,398.60

SOLUTION SIX

i.

Statement of Cost and Profit   (K)

Direct Materials		50,000
Direct Wages		15,000
Prime Cost		**65,000**
Add: Factory Overheads:		
Wages of foreman	1,250	
Electric power	250	
Storekeeper's Wages	500	
Oil and Water	250	
Factory rent	2,500	
Repairs and renewals-Factory Plant	1'750	
Factory lighting	750	
Depreciation-Factory Plant	250	
Consumable stores	1,250	
		8,750
Cost of production		**73,750**
Add: Administration Overheads:		
Office rent	1,250	
Repairs and Renewals-Office Premises	250	
Office lighting	250	
Depreciation : Office Premises	625	
Manager's Salary	2,500	
Director's fees	625	
Office Stationery	250	
Telephone charges	62.50	
Postage and telegrams	125	
		5,937.50
		79,687.50
Add: Selling and Distribution Overheads:		
Carriage Outward	187.50	
Salesmen's Salaries	625	
Travelling Expenses	250	
Advertising	625	
Warehouse charges	250	
		1,937.50
Cost of Sales		**81,625**
Profit		**13,125**
Sales		**94,750**

ii)

a. A cost object is any activity for which a separate measurement of cost is desired. The cost of something is referred to as 'cost object'. Examples of cost objects include cost of a product or the cost of rendering service e.g. in a bank or in a hospital.

b. A cost unit is "a unit of quantity of product, service or time in relation to which costs may be ascertained or expressed". The forms of measurement used as cost units are usually the units of physical measurements like number, weight, area, length, value, time etc.

c. Cost centre means "a location, person or item of equipment (or group of these) for which costs may be ascertained and used for the purpose of cost control". Cost centre is the smallest organizational subunit for which separate cost collection is attempted. Thus cost centre refers to one of the convenient unit into which the whole factory organization has been appropriately divided for costing purposes. Each such unit consists of a department or a sub-department or item of equipment or, machinery or a person or a group of persons.

d. Revenue centres are responsibility centres where managers are mainly accountable for financial performance in the form of generating sales revenue. Revenue centre managers are also managing expenses in their areas of control.

e. A profit centre is that segment of activity of a business which is responsible for both revenue and expenses and discloses the profit of a particular segment of activity. Profit centres are created to delegate responsibility to individuals and measure their performance.

END OF SOLUTIONS

DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 6: BUSINESS LAW
_____

FRIDAY 15 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
_____

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO sections:
    Section A: One (1) Compulsory scenario question.
    Section B: Five (5) Optional Questions. Attempt any four (4) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

QUESTION ONE

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

QUESTION ONE

1.1   All the following are appeal courts except……………………………?
A. The Small Claims Court
B. The Supreme Court
C. Court of Appeal
D. The High Court   (2 marks)

1.2   Which one of the following statements explains **obiter dicta?**
A. By the way statements made by judges
B. A binding resolution of a tribunal
C. An adjudicative statement by the judge
D. A source of law**.**   (2 marks)

1.3   What is vicarious liability?

A. An employer being liable for the actions of an employee
B. A third party being involved in a dispute
C. A ruling of the court on a party liable in a cause of action.
D. Liability by relations   (2 marks)

1.4   When does title pass under the Sale of Goods Act of 1893?
A. When the contract was made
B. When buyer takes possession of the goods
C. When buyer states that she accepts the goods
D. When buyer pays for the goods   (2 marks)

1.5   Which of the following sentences has the correct definition of law?
A. Law is a set of rules used to regulate conduct
B. Law is a body of moral standards
C. Law consists of ethics that are used to regulate certain professionals
D. Law is a collection of rules used to punish offenders   (2 marks)

1.6   Which one of the following is not an example of a tort?
A. Defamation
B. Malicious prosecution
C. False imprisonment
D. Fraud   (2 marks)

1.7   What is statutory interpretation?
        A. The process by which judges bring out the meaning of the words used in
           Statutes.
        B. This is when judges use their discretion to simplify words
        C. This is when people use the dictionary to understand words
        D. This is the process of understanding words   (2 marks)

1.8   Which of the following types of dismissal occurs when no notice is given to the
        employee?
        A. Constructive dismissal
        B. Summary dismissal
        C. Unfair dismissal
        D. Wrongful dismissal   (2 marks)

1.9   Which of the following best explains the concept 'discharge of a contract'?
        A. Termination of a contract
        B. Release of parties from their obligations
        C. Performance of an obligation
        D. Payment of one party by the other   (2 marks)

10.0   Which of the following rules does not assist judges in the interpretation of statutes?

        A. Mischief rule
        B. Noscitur a sociis
        C. Contra proferentum rule
        D. The context rule   (2 marks)
                                                                  [Total: 20 Marks]

SECTION B

There are five (5) questions in this section. Attempt any four (4) questions.

QUESTION TWO

Jane advertised for the sale of some decorations for the price of K5,000. Lulu saw the advert and approached Jane at her office along Swima Street in Wonderful Township. Lulu offered to buy the decorations; and Jane agreed to her offer. After a few days, Lulu approached Jane and offered to pay Jane K4,950 instead of the initial K5,000. Jane refused to accept the amount of money proposed by Lulu and sold off the decorations to Ali who bought them for K5,000.

Two weeks later, Lulu goes to Jane only to discover that the decorations are all sold out. She now intends to sue Jane.

(a)   Advise Lulu as to whether or not a valid contract was made.   (11 marks)

(b)   Explain any three remedies available to Lulu in the event it is found that there was breach of contract.   (9 marks)

[Total: 20 Marks]

QUESTION THREE

Dr. Mulenga & Honorable Chanda Mukwendo run a partnership business manufacturing computers and they recently placed an advertisement in a computer trade magazine stating that they would supply a particular type of their latest computer which sings and type audio voices for K7,500. The advert also stated that they would consider a reduction in the price for substantial orders. Following the advert, they received two enquiries, one from Game Stores and the other from Home Corp. Each business requested their terms of supply for 500 computers. Doctor Mulenga replied to both offering to supply the required computers at a cost of K7,000 each.

They both responded to the partners stating that they accepted the offer but that they would only pay K6, 500 per computer. Honorable Chanda wrote back to Game stores stating that they would supply the computers but only at the original price of K7,500. When Chanda's letter arrived, the purchasing director of Game stores did not notice the alteration

of the price and ordered the 500 computers from the partnership, which they promised to deliver.

Dr. Mulenga also wrote back to Home Corp, but they responded by saying that they could only pay K4,500 per computer. Dr. Mulenga once again wrote to say that such a price was not satisfactory. Home Corp finally sent an order for 1000 computers at the original price of K7, 500. Dr. Mulenga delivered the computers, he however increased the price to k8,000 per computer and pocketed the difference. Chanda discovers the crookedness of the Doctor. Now he has threatened legal action against Dr. Mulenga.

(a)   (i)   Advise Chanda on the rights and obligations of partners in a partnership.

(4 marks)

        (ii)   Advise him further on the contractual obligations which arose from the above scenario.   (4 marks)

(b)   Suzan, the owner of a factory building, spreads rat poison on slices of bread with the intention of putting it down to attract and destroy vermin. Peter, an employee with learning difficulties, who has forgotten his lunch, finds the bread and eats a slice, as does Brian, a small boy who has wandered into the factory building. Both Peter and Brian become seriously ill.

        (i)   Discuss the possible liabilities to Suzan.   (3 marks)

        (ii)   List any two (2) defences available in tort   (2 marks)

        (iii)   Explain the meaning and effect of contributory negligence.   (3 marks)

        (iv)   Discuss the concept of remoteness of damage in the tort of negligence.

(4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a)   In the legislative process list the stages that a bill has to pass through before it becomes legislation.   (6 marks)

(b)   Explain the difference between disclosed and undisclosed agency.   (6 Marks)

(c)   Tom Zulu went with his wife Beauty Zulu to the Agricultural and Commercial Show at the Show grounds in Lusaka. Beauty remained behind watching Nyau Dancers and got lost in the mammoth crowd. Tom announced on a megaphone that he would reward whoever found his wife with five hundred kwacha and he would be waiting at gate B.

When Beauty Zulu heard the announcement, she rushed to the gate and demanded for the money arguing that she had found herself, and was entitled to the reward.

Explain if she is entitled to this reward. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Julius Mubanga went to Kafue National Park Lodge, where he spent a night. He did not see the notice at the entrance to the car park because it was hidden by flowers and branches of shrubs. It read as follows:

PARKING NOTICE TO ALL MOTORISTS

This is to inform all motorists who park in these premises, that they do so at their own risk. The Lodge or its servants will not be responsible for any loss or damage to property or for any injuries to persons who may find themselves legally or illegally on these premises. However, management reserves the right to enforce traffic rules regarding parking, to the exclusion of the traffic police, and to clamp any vehicle wrongfully parked to the inconvenience of other motorists.

Mubanga proceeded to the reception, paid for his lodging and parking fees and went to sleep. He found the following day that the rim covers to the tyres of his car had been stolen. The management of the hotel referred him to the parking at owner's risk notice, and insisted that the Lodge was not responsible for the lost rims.

(a)   Explain to Mubanga on whether such notices to avoid liability for loss or damage have a place in modern business. (11 marks)

(b)   Advise him also if there are any legal means to keep such notices out of the main agreements as people go about their businesses. (9 marks)

[Total: 20 Marks]

QUESTION SIX

(a) TAP employed the Complainant on 1st August 1982 as Personnel Manager on probation period of three months.   In 1982 November, the respondent informed the complainant that they could not confirm him as Personnel Manager. The Works Council intervened successfully and the complainants' period of probation was

extended. But on 25th March 1983, the respondent terminated the complainants' contract of employment.

The complainants' complaint was that his services were terminated because of his political activities and as such was contrary to section 108 (2) of the Industrial Relations Act.

The section provides:

"Any employee who has reasonable cause for believing that his services have been terminated or that he has suffered any other penalty or disadvantages on any of the grounds set out in subsection (i) may within thirty days of the occurrence or occurrences which may give rise to such belief, lay a complaint before the Industrial Relations Court and the court shall if it finds in favour of the complainant, grant to him such remedy as it deems fit including re – instatement for loss of employment". The court was asked to rule whether or not on the evidence before it, the respondents terminated the contract with the complainant on political ground other than the reasons advanced. The complainants' case was that respondents were not pleased with him because he mixed freely with Workers Councilors, members of the party committee and work committee members.

Required:

Advise the Personnel Manager in relation to the above facts   (10 marks)

(b)   Under the Sale of Goods Act 1893, explain any **five (5)** exceptions to the *nemo dat quod non habet* rule.   (10 marks)

[Total: 20 Marks]

END OF PAPER

DA 6: BUSINESS LAW SOLUTIONS

SECTION A

SOLUTION ONE

1.1   A
1.2   A
1.3   A
1.4   D
1.5   A
1.6   D
1.7   A
1.8   B
1.9   B
1.10   C

SECTION B

SOLUTION TWO

A contract is a legally binding agreement where one makes an offer and the other accepts unconditionally. There are certain elements of a contract that need to be present for a contract to be a valid contract. The main ones being, offer, acceptance, consideration and intention to create legal relations.

An offer must always be distinguished from an invitation to treat such adverts, auction sale, tenders etc. In the case at hand, the advert by Jane was merely an invitation to treat and therefore, had no legal consequences. Lulu's statement to Jane to buy the decorations is what constituted an offer. An offer which is a definite promise to be bound on certain specific terms. Jane accepted Lulu's offer, however, Lulu's introduction of a payment of a lesser sum of money K4,950 constituted a counter-offer thereby cancelling the original offer of K5,000.

An example is **Hyde v Wrench (1840)**, where D offered his farm to P for £1,000. P wrote saying he would give £950 or it. D refused this, and P then said he would pay £1,000 after all. D had by now decided that he did not wish to sell P for £1,000. P sued for breach. His action failed because his offer of £950 was a counter offer, which terminated D's offer of £1,000, thus when P purported to accept at £1,000 there was no offer in existence and therefore no contract was formed.

In the same way, no contract has been formed between Jane and Lulu and therefore, Lulu cannot succeed even if she was to sue Jane.

(b) The word remedy refers to compensation that is awarded to an innocent party to a contract in the event that the other party breaches the contract. Thus, Lulu could have a number of remedies if it is proven there was breach of contract.

       i.   Damages may be awarded as compensation for loss caused by the breach.
      ii.   Action for the price is available where the breach is failure to pay
     iii.   Quantum meruit is payment for the value of what the plaintiff has done
     iv.   Specific performance is a court order to the defendant to perform the contract
      v.   Injunction is a court order for the other party to observe negative restrictions.

           Damages and action for the price are common law remedies and are most frequently sought when a remedy is needed for breach of contract, since they arise as of right. A quantum meruit claim is categorized as a claim in quasi-contract. The other type of remedy is equitable remedies, which are only appropriate in specialized circumstances.

SOLUTION THREE

a)

i. Rights and Obligations of Partners as Mentioned in the Partnership Act

The relationship of partners among themselves, their rights and obligations are generally given in the partnership deed. If partnership deed is silent about it, then the partners shall have rights and obligations mentioned in the Partnership Act.

Right of a Partner:

(i) Every partner has a right to take part in the conduct and management of the business.

(ii) Every partner has a right to be consulted before taking important decisions. The decisions should be taken by mutual consent. If the decisions are unimportant, then they can be enforced by majority, but consensus of all partners is necessary for taking important decisions.

(iii) The partners have a right to inspect books of accounts.

(iv) Every partner will have an equal share in profits, unless otherwise mentioned, in partnership deed.

(v) No new partner can be admitted into partnership without the consent of all partners.

(vi) Every partner has a right to receive interest at the rate of 6% per annum on the excess money supplied over his capital.

(vii) Every partner has a right to be indemnified by the firm in respect of expenses incurred or losses suffered for the normal conduct of the business.

(viii) A partner has a right to get the firm dissolved under appropriate circumstances.

(ix) The property of the firm shall be held and used exclusively for the purpose of the business.

Obligations of a Partner:

1) Every partner should carry on the business to the greatest common advantage. He must perform his duties honestly and diligently.
2) A partner is not entitled to get remuneration for the conduct of business, unless otherwise it is specially mentioned in the partnership deed.
3) A partner must indemnify the firm for loss suffered because of his fraudulent conduct or willful neglect.
4) A partner is bound to keep and render true and correct accounts of the business.
5) A partner cannot carry on a competing business. If he carries on such business he shall account for and pay to the firm all profits made by him in that business.
6) A partner is bound to act within the scope of his authority.
7) No partner can make a secret profit of the partnership business by way of commission, etc. If he does so, he must return the money to the firm.

ii)

Contract obligations are those duties that each party is legally responsible for in a contract agreement. In a contract, each party exchanges something of value, whether it be a product, services, money, etc. On both sides of the agreement, each party has various obligations in connected with this exchange. An example of contract obligations is with the sale of a product such as an automobile. One party has the obligation to transfer ownership of the car, while the other has the obligation to pay for it. The contract will specify the terms that regulate the obligations, such as the method and amount of payment, and the time/place of delivery. If either party fails to perform their contractual obligations according to the contract terms, it will usually result in a breach of contract. This may result in a damages award to reimburse the non-breaching party for their economic losses.

In the case at hand, it can be argued that the advertisement amounted only to invitation to treat, this was also highlighted in the case of **Fisher v Bell [1961] 1 QB 394** where the court stated that goods displayed in a shop together with a price label, such display is **treated** as an **invitation to treat** by the seller, and not an offer.

In some cases, contract obligations can be transferred to a third party. For instance, if one party is obligated to paint the other party's house, they can sometimes hire an outside party to do the painting for them. This is known as "contract delegation". Contract delegation may or may not be allowed for all obligations; the ability to delegate a contract duty may depend on the type of obligation as well as state contract laws. It can also be argued that, the amount pocketed by Dr Mulenga was a violation of the obligation of partners. Suffice also to state that, counter offers were made as was seen in **Hyde v. Wrench.**

b) i. Susan is strictly liable for the offence committed as was seen in **Ryland v. Fletcher**. In law, strict liability is a standard for liability which may exist in either a criminal or civil context. A rule specifying strict liability makes a person legally responsible for the damage and loss caused by his/her acts and omissions regardless of culpability (including fault in criminal law terms, typically the presence of mens rea). Under strict liability, there is no requirement to prove fault, negligence or intention. Strict liability is prominent in tort law (especially product liability), corporations law, and criminal law. For analysis of the pros and cons of strict liability as applied to product liability, the most important strict liability regime.

ii. *Volenti non fit injuria*, negligence, contributory negligence, necessity, mistake, consent act of God, Inevitable accident, statutory provision

iii. Contributory negligence in common law jurisdictions is generally a defense to a claim based on negligence, an action in tort. This principle is relevant to the determination of liability and is applicable when plaintiffs/claimants have, through their own negligence, contributed to the harm they suffered. In some jurisdictions it may be applied by the court in a tort matter irrespective of whether it was pleaded as a defense.

The contributory negligence defense can potentially eliminate the defendant's responsibility to pay damages to an injured plaintiff. For example, a pedestrian crosses a road negligently and is hit by a driver who was driving negligently. Since the pedestrian has also contributed to the accident, they may be barred from complete and full recovery of damages from the driver (or their insurer) because the accident was less likely to occur if it hadn't been for their failure to keep a proper lookout. Another example of contributory negligence is where a plaintiff actively disregards warnings or fails to take reasonable steps for his or her safety, then assumes a certain level of risk in a given activity; such as diving in shallow water without checking the depth first.

ɪv. Under English law, remoteness is a rule in both tort and contract, which limits the amount of compensatory damages for a wrong. In negligence, the test of causation not only requires that the defendant was the cause in fact, but also requires that the loss or damage sustained by the claimant was not too remote. As with the policy issues in establishing that there was a duty of care and that that duty was breached, remoteness is designed as a further limit on a cause of action to ensure that the liability to pay damages is fairly placed on the defendant.

Directness

The traditional approach was that once a breach in the duty of care had been established, a defendant was liable for all the consequent damage no matter how unusual or unpredictable that damage might be. In _Re Polemis_ while docked, workers employed to unload the ship negligently dropped a plank into the hold, which struck something, causing a spark that ignited petrol vapour lying in the hold. The fire destroyed the whole ship. The Lords held that although the fire was not a reasonably foreseeable consequence of the plank falling, there had been a breach of the duty of care and all damage representing a direct consequence of the negligent act was recoverable. It was determined that once _some_ harm was foreseeable, the defendant would be liable for the full extent of the harm. That particular consequences are possible does not make them reasonably foreseeable. This will particularly be the case when there are a significant number of links constituting the chain. The more links, the less likely that consequence may be considered reasonably foreseeable.

Foreseeability

However, in The Wagon Mound (No 1) a large quantity of oil was spilt into Sydney Harbour from the Wagon Mound and it drifted under the wharf where the claimants were oxyacetylene welding. The resulting fire caused extensive damage to the wharf and to vessels moored nearby. The Privy Council replaced the direct consequence test with the requirement that, in order to be recoverable, damage must be foreseeable in all the circumstances, thus, although pollution was a foreseeable consequence of the spillage, an outbreak of fire was not. Viscount Simonds held at pp 422–423:

"   A man must be considered to be responsible for the probable consequences of his act. To demand more of him is too harsh a rule, to demand less is to ignore that civilised order requires the observance of a minimum standard of behaviour.   "

He went on to say at p 423, that a man should be responsible for the necessary or probable consequences of his act (or any other similar description of them), "not because they are natural or necessary or probable, but because, since they have this quality, it is judged by the standard of the reasonable man that he ought to have foreseen them."

In Hughes v Lord Advocate a child climbed down a manhole left uncovered and protected only by a tent and paraffin lamp. When he came out he kicked over one of the lamps, which fell into the hole and caused an explosion. The child was burned. Lord Reid said at 845,

" So we have (first) a duty owed by the workmen, (secondly) the fact that if they had done as they ought to have done there would have been no accident, and (thirdly) the fact that the injuries suffered by the appellant, though perhaps different in degree, did not differ in kind from injuries that might have resulted from an accident of a foreseeable nature. The ground on which this case has been decided against the appellant is that the accident was of an unforeseeable type. Of course, the pursuer has to prove that the defender's fault caused the accident and there could be a case where the intrusion of a new and unexpected factor could be regarded as the cause of the accident rather than the fault of the defender. But that is not this case. The cause of this accident was a known source of danger, the lamp, but it behaved in an unpredictable way.

Note that the student need not cite all the cases but the principle or correct explanation is key from the above cases

SOLUTION FOUR

(a) The legislative process consist of the following stages:

  i. First Reading
  ii. Second Reading
  iii. Committee Stage
  iv. Report Stage
  v. Third Reading
  vi. Presidential Assent

(b) A disclosed agency is an agency relationship where the agent discloses to the third party that he is acting on behalf of the principal, while undisclosed agency is where the agent conceals that he is acting on behalf of the principal to the third party. Thus, in disclosed agency the principal is held liable while in undisclosed agency the agent will be held personally liable.

(c) It must be noted that a reward is legal at law and what is vital is doing the terms of the reward. These fall under unilateral contract where one party does a contract without accepting it directly but does exactly the offers asserted. For example, finding a lost dog. However, the party finding the dog must be aware of the promise so as to avoid past consideration and voluntary acts meant only to help.

Thus, Beauty is not entitled because she was the subject matter of the contract (item to be found) made between her husband, the offeror and the public at large.

SOLUTION FIVE

(a) An exemption clause is an additional term to contract by one party seeking to deny or limit liability for loss. Although they are express terms, courts are reluctant to enforce them, and interpret them in such a way as to prevent their application. This is because they defeat the spirit of agreement as they are added by one party. However, exclusion clauses have their proper place in business: they apportion risk, and courts are aware of this contribution to commerce. If one is constantly compensating those who have incurred loss, then one is likely to close his business. It is therefore imperative to allocate contractual loss, determine who bares the loss and insure against the risk. In such eventuality, courts are keen to ensure that the party seeking to rely on the exclusion clause did not act unilaterally but involved the other party and that there was a spirit of agreement. Otherwise, courts may use the following rules that they have designed to prevent incorporation of the exemption clause into the main contract, namely:

(b) Courts have designed three rules to assist them in keeping exemption clauses out of the main agreements, namely:

- **Contra preferentem rule** – in case of ambiguity or uncertainty in the exclusion clause, it must be interpreted in such way that it does not benefit the party that inserted into the contract.

- **The Repugnancy rule or doctrine of fundamental breach** - if the exclusion clause goes against the purpose of the main contract, then it must be struck out of the contract. For example where a warehouse for storage of goods states in a contract of storage that it will not be responsible for any goods lost during storage.

- **The Four Corners Rule –** this refers to the main contract. The party that seeks protection of the exclusion clause must act within the confines

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of the main agreement and any departure from the same, means that the protection is lost.

- **Customer needs to be informed of the existence of the exclusion clause or directed where it before a contract is made.**

SOLUTION SIX

(a) Unfair dismissal is when an employee is dismissed from their job in a harsh, unjust or unreasonable manner including political ground. In sort the employee is discriminated contrary to section 108 of the IRC.

An example is the case of **REDRILZA LIMITED v ABUID NKAZI AND OTHERS (S.C.Z. Judgment No. 7 of 2011)** which was an appeal against the judgment of the Industrial Relations Court. In the complaint before the Industrial Relations Court, the respondents whose contracts of employment were terminated by notice claimed, amongst other things, their salary for the unexpired term of their contracts. The Industrial Relations Court found in favour of the respondents, on the basis that the appellant invoked the termination clause in the respondent's contract of employment in bad faith, and consequently ordered that they be paid six months salary as damages. Hence the appeal.

Section 108 (2) of the Industrial Relations Act.

The section provides:

"Any employee who has reasonable cause for believing that his services have been terminated or that he has suffered any other penalty or disadvantages on any of the grounds set out in subsection (i) may within thirty days of the occurrence or occurrences which may give rise to such belief, lay a complaint before the Industrial Relations Court and the court shall if it finds in favour of the complainant, grant to him such remedy as it deems fit including re – instatement for loss of employment". It therefore means that the termination was unfair and as reinstatement is the best with adequate damages.

In **ZAMBIA PRIVATISATION AGENCY v JAMES MATALE (1996) S.J**. ... The contract of employment made no provision for prior termination and the Court ... was a proper and lawful way of terminating the respondent's on the basis that in the .... marital status, religion, political opinion or affiliation, tribe extraction or social status.

Therefore, in the above scenario, the personnel manager was unfairly dismissed and must be reinstated or compensated for loss of employment as provided for in the Act.

(b) Exceptions to the *nemo dat quod non habet* rule are:

(i) *Estoppel* – This occurs where the owner of the goods being sold conducts himself as if the seller has title to the goods and in an event that the seller sells the goods based on the owner's conduct, the owner will be estopped (stopped) from denying that he conducted himself as if he gave the seller powers to sell – *Eastern Distributors Ltd v. Goldring (1957)*.

(ii) *Agency* – An agent has authority to sell the principal's goods which are not his. Therefore, if the villagers/fishermen sold the phones as CHM Electronics Ltd's agents, they would have the right to pass title even if they were not owners.

(iii) *Sale under Common Law or Statutory Power* – This is where a creditor or pawnbroker may sale pledged goods when the debtor defaults. Thus can transfer title even if he is not the owner.

(iv) *Sale by a person with voidable title* – A person who acquires goods under a voidable title will acquire a good title to the goods provided he buys under good faith and can pass title anytime before revocation.

(v) *Sale under Disposal of Uncollected Goods Act CAP 410* – This Act provides for disposal of uncollected goods after a certain period of time e.g. 6 months.

(vi) *Sale under market overt* - This is one of the common law exceptions to *nemo dat quod non habet* rule which states that a buyer who buys the goods in good faith from an open market between 06:00 and 18:00 hours would get good title because all those who sale in open markets are presumed to be owners.

(vii) *Sale by seller in possession of goods or documents* – This is an exception to the *nemo dat* rule which mean that if a seller has sold goods to buyer 1 but retains the goods or documents of title to the goods, he would have the right to sell the same goods to buyer 2 even if he is not infact the owner as he could have sold to buyer 1 already.

(viii) *Resale by buyer in possession of goods with consent of seller* – where a buyer gets goods from the seller with his consent, e.g if he has not finished paying, he can still pass good title to the new buyer as long as the new buyer is not aware of his status.

END OF SOLUTIONS

DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS
_____

LEVEL ONE
_____

DA 7: PRINCIPLES OF MANAGEMENT
_____
MONDAY 11 DECEMBER 2017
_____

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS
_____

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO sections:
    Section A: One (1) Compulsory question.
    Section B: Five (5) Optional Questions. Attempt any four (4) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

QUESTION ONE

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1   Who is considered to be the father of scientific management theory?

A. Henry Gantt
B. Fredrick W Taylor
C. Henri Fayol
D. Elton Mayo   (2 marks)

2.2   Mubita was analyzing the age distribution of the population of Lusaka and Copperbelt provinces for the purpose of making a marketing decision. Which business environmental factor was he considering?

A. Market environmental factor
B. Legal environmental factor
C. Social environmental factor
D. Political environmental factor   (2 marks)

1.3   …………………………………… is a horizontal extension of the job by increasing task variety and reducing task repetition.

A. Job rotation
B. Job enlargement
C. Job enrichment
D. Job optimization   (2 marks)

1.4   Which stages are correct in managing a successful change according to Kurt Lewin?

A. De-freeze, unfreeze and change
B. Re-freeze, change and unfreeze
C. Unfreeze, re-freeze and change
D. Unfreeze, change and re-freeze   (2 marks)

1.5   Which management term best describes the number of subordinates who
       directly report to an immediate superior?

       A. Span of control
       B. Chain of command
       C. Delegation
       D. Unity of command   (2 marks)

1.6   Mutinta, who is a Human Resource Officer, was given a task to determine the
       purpose, responsibilities and duties of an assistant accountant job. Which human
       resource term is used to describe this process?

       A. Job analysis
       B. Job description
       C. Job specification
       D. Person specification   (2 marks)

1.7   The organizational structure with a formal structure, well defined rules, regulations
       and procedures is associated with which organisational culture.

       A. Role culture
       B. Power culture
       C. Task culture
       D. Person culture   (2 marks)

1.8   Content theories of motivation explain.

       A. How employees can be motivated
       B. What motivates employees
       C. When employees can be motivated
       D. How and what motivates employees   (2 marks)

1.9   An element of emotional intelligence that deals with the leaders self-confidence and
       accurate self-assessment is called:

       A. Self-awareness
       B. Empathy
       C. Self-management
       D. Social skills   (2 marks)

1.10 The Zambian government made a decision to commercialize some of the public organizations such as Zambia State Insurance Corporation(ZSIC).

Which of the following explains commercialization?

A. Selling public organizations to private sector
B. Having an objective of making profits
C. Providing goods and services at break even
D. Being transparent and accountable (2 marks)

[Total: 20 Marks]

SECTION B

There are FIVE (5) questions in this section. Attempt any FOUR (4) questions.

QUESTION TWO

(a)   Change in business organizations is inevitable due to changing factors in the business environment.

Required:

Explain how a manager can manage change among employees using Lewin's three stage change process approach.   (12 marks)

(b)   Explain four (4) skills that managers apply in the management of organizations.

(8 marks)

[Total: 20 Marks]

QUESTION THREE

(a)   Performance evaluation of employees plays an important role towards the success of an organization.

Required:

Outline the four (4) requirements for an effective performance appraisal approach system.   (12 marks)

(b)   Give four (4) differences between a public and private sector.   (8 marks)

[Total: 20 Marks]

QUESTION FOUR

(a)   Discuss the theory of motivation according to Douglas McGregor.   (10 marks)

(b)   Give reasons why many Zambian entrepreneurs are operating as sole traders.

(10 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) State any ten (10) principles of management by Henri Fayol.   (10 marks)

(b) Explain any five (5) macro-environmental factors that affect the business

environment.   (10 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Discuss the traits theory of leadership and its limitations.   (10 marks)

(b) Define the following management terms.

(i)	Delegation	(2 marks)
(ii)	Organisational culture	(2 marks)
(iii)	Performance appraisal	(2 marks)
(iv)	Limited liability	(2 marks)
(v)	Decentralisation	(2 marks)

[Total: 20 Marks]

END OF PAPER

DA 7: PRINCIPLES OF MANAGEMENT SOLUTIONS

SECTION A

SOLUTION ONE

1.1   B
1.2   C
1.3   B
1.4   D
1.5   A
1.6   B
1.7   A
1.8   B
1.9   A
1.10 B

SECTION B

SOLUTION TWO

(a) Kurt Lewin developed a three phase process to manage change and these are as follows:

1. **Unfreezing**

   This involves reducing those forces in employees which maintain behaviour in the present form and recognizing the need for change. This stage entails a manager giving full information to employees on the need for change and explaining the benefits to both employees and organisation. Benefits could be improved profitability and better conditions of work.

2. **Change/Movement**

   This involves developing new behaviours, attitudes and values among employees and implementing change. New attitudes and behaviours to be exhibited by employees are reporting for work on time, minimizing on wastage of resources, upholding high standard of quality control etc

3. **Refreezing**

   Stabilizing the implemented change and reinforcing new behaviours among employees by awarding those who are adapting to change. Reinforcement can also be done through developing new policies, systems, procedures, structures etc.

(b)The following are the skills a manager must possess:

1. **Conceptual skill.**

   This is the ability of a manager to assess and analyse the complexity of the business environment the organisation is operating in. The manager must be able to asses and understand both internal and external factors influencing the operations of the business in order to make sound business decisions.

2. **Technical skill**

   This is the ability of the manager to have knowledge and expertise in the aspect of business being managed. The specific skills could be in accounting, engineering, purchasing etc. This will enable the manger to apply the specific knowledge in an area of specialization. Senior managers/managing directors/CEOs also need to develop management skills in planning and control.

3. **Social /interpersonal skill**

   This is the ability of a manager to interact with others at all levels of management that include top, middle and lower. He also makes interpersonal relationships with external stakeholders. That is a manager needs excellent skills in people management.

4. **Leadership skill**

   This is the ability to influence, direct and motivate subordinates in order for them to achieve their assigned tasks. Once subordinates achieve their targets it means the organisation has achieved its goal.

SOLUTION THREE

(a)   **1. Target Formulation**

The following are the requirements for performance appraisal system.

Developing individual employee targets which are used to appraise. The employee's performance is evaluated at a pre-determined timeframe against the set targets to ascertain whether the targets have been achieved or not.

2. Recording Assessments

After the evaluation of an employees performance, the actual performance is recorded and assessed by the immediate supervisor.

3. Feedback

Feedback must be formally given to the appraised employee on his or her performance by the supervisor. The feedback information could be on achieving the target or performance below the expected standards.

4. Deciding what to do

Making a decision based on feedback. Based on the performance results, the decision could be made to award outstanding performance with promotions, bonuses or merit salary increment. Also recommendation could be made for training.

(b)The following are the differences between public and private sector.

1. Public sector involves organizations that are owned and controlled by the government while private sector involves organizations owned and controlled by private individuals.

2. Public sector has the objective of providing services and goods not at a profit but the private sector has the objective of maximizing on profits.

3. The public sector is financed using public funds generated through tax while private sector is financed by its owners or shareholders using their personal finances.

4. In private sectors managers are held accountable to the shareholders and in Public sector managers are held accountable to the citizens or government.

SOLUTION FOUR

(a)   Douglas developed a theory of motivation in 1960 known as theory X and theory Y, which are based on assumptions about people and work.

Theory X assumes that:

1. An average employee is lazy and has an inherent dislike for work.
2. Therefore, employees or people must be coerced, controlled and directed for them to work and achieve objectives.
3. An average person avoids responsibility, prefers to be directed and values job security.
4. Therefore, a manager who uses theory X usually applies close supervision, uses strict rules and controls. Generally apply authoritarian type of leadership.

Theory Y assumes that:

1. Most employees work is as natural as play or rest.
2. People will exercise self-direction and control in the service of objectives to which they are committed.
3. Given the right conditions, the average employee can learn to accept and to seek responsibility.
4. A manager usually adopts democratic type of leadership to motivate employees.

(b) The following are the reasons for Zambian entrepreneaurs operating as sole traders.
1. Sole trader as a form of business is easy to register with PACRA as it does not require a lot of legal procedures in comparison to limited companies.
2. All the profits generated under this form of a business is retained and enjoyed by the owner.
3. Business decisions are made quickly by the owner since it is owned by one person.
4. It requires a small amount of capital to start.
5. The books of accounts are kept privately by the owner without publication to the general public.

SOLUTION FIVE

(a) Any 10 of the 14 principles of management of Henri Fayol

1. **Divisoin of labour**: Workers must have areas of specialization to improve efficiency and quality of work.
2. **Authority and responsibility**: Authority the right a manager must have to give instructions to subordinates for them to carry out tasks. If a Manager has authority, then must be responsible to superiors for their actions.
3. **Discipline**: The employees must be obedient to the rules and regulations of the organisation.

4. **Unity of Command**: Each subordinate must have one immediate superior to report to.
5. **Unity of Direction**: Group of activities with same objectives must be under one plan and supervisor.
6. **Subordination of individual interest to the general interest**: The interest of the organisation must come before the individual.
7. **Remuneration**: Pay to employees must be fair.
8. **Centralisation**: There should be one central point in the organisation that exercise control of all the departments.
9. **Scalar Chain**: This is the hierarchy of authority in an organisation ranging from top, middle and lower management.
10. **Order**: There must be order among employees by following the rules and regulations.
11. **Equity**: Managers must practice fairness and justice in the management of workers. Therefore, if employees perceive fairness and justice they will be motivated.
12. **Stability of tenure of personnel**: Maintaining employees in their job improves their efficiency, therefore, management must reduce labour turnover.
13. **Initiative**: This is encouraging employees to be creative and participating in decision making.
14. **Esprit de corps**: By working as a team success is easily achieved. Team spirit and work should be encouraged among workers.

(c) The macro-environmental factor represented by an acronym PESTEL are

1. **Political**: This involves the social and economical policies that are formulated by the government which affect the operations of the business. Also it involves the degree of political stability of the country which affect investment climate.
2. **Economical**: This involves the economical performance of the country through its ecomomical indicators or fundamentals such as level of inflation, employment rate, foreign exchange rate, interest rates etc
3. **Social and Culture**: This encompasses the beliefs, values and culture of people that have an influence of the nature of goods to produce and the marketing strategies to employ. Social factors will also includes demographic factors such as sex, population size, education levels etc
4. **Technology**: Rapid advancement in technology has affected production and marketing. The prominent one is the use of computer which is both used in the production of goods, provision of services and marketing.
5. **Enviromental**: This entails the use of environmentally friendly production processes that does not pollute the environment. Companies are encouraged to go green by use of solar energy, hydro-electricity, use of natural fertilizer etc.
6. **Legal**: This is the formulation of various laws that govern the operations of business organizations. The laws that affect business are company law, environmental laws, labour laws, consumer protection laws etc. Therefore, business organizations are expected to comply with the various laws and failure results into punishment.

SOLUTION SIX

(a) Traits theory is a leadership theory that assumes that leaders are born and not made. Therefore, leaders have certain mental and physical characteristics that make them to be successful. The identified general characteristics are:

i) Self-confidence
ii) Creative and innovative
iii) Intelligent
iv) Emotional stability
v) Dependability
vi) Human relations skills
vii) Foresight
viii) Energy

The following are the limitations

1. The list of possible traits is broad and there is no agreement on the most important.

2. It ignores the fact that leadership can be situational.

(b)

i) **Delegation** is the process of entrusting authority and responsibility to lower management. This means lower management or subordinates are given authority to carry out certain tasks.
ii) **Organisational culture** is the pattern of assumptions, values, beliefs and norms that are commonly shared by employees in an organisation.
iii) **Performance appraisal** is the process of evaluating the performance of an employee against the set targets at a predetermined period.
iv) **Limited liability** means that in the event where a company fails to pay for its debt, shareholder's personal assets cannot be seized.
v) **Decentralisation** is the devolution of authority to make decisions to other centres or divisions that are away from the headquarters.

END OF SOLUTIONS