COMMERCIAL ARITHMETIC

a) DISCOUNTS, PROFIT AND LOSS

	KCSE 1989 – 2012 Form 1 Mathematics
1.	**1990 Q6 P1** Musa paid sh180 for a shirt after getting a discount of 10%. The shopkeeper made a profit of 20% on the sale of this shirt. What percentage profit would the shopkeeper have made if no discount was allowed? (3marks)
2.	**1990 Q24 P2** An import company brought into the country some amplifiers that cost sh 3750 each. The government imposed an import duty of 125% and a sales tax of 20%. If the company decided to make a 10% profit on sales, calculate the selling the price of each amplifier (8marks)
3.	**1991 Q2 P1** A shopkeeper made a loss of 30% by selling an electric iron at sh700. What profit would he have made had he sold it at sh 1150? (3marks)
4.	**1997 Q12 PI** A businesswoman bought two bags of maize at the same price per bag. She discovered that one bag was of high quality and the other of low quality. On the high quality bag she made a profit by selling at Kshs 1,040. Whereas on the low quality bag she made a loss by selling at Kshs 880. If the profit was three times the loss, calculate the buying price per bag.

5.	**1998 Q7 P2**
	A manufacturer sells bottle of fruit juice to a trader at a profit of 40%. The trader sells it for Kshs 84 at a profit of 20%. Find
	   (a) The trader's buying price
	
	   (b) The cost of manufacture of one bottle

6.	**2001 Q6 P2** A telephone bill includes Ksh.4,320 for local calls,Ksh.3,260 for trunk calls and a rental charge of Kshs.2,080.A value added tax (V.A.T.) is then charge at 15%.
7.	**2003 Q2 P2** A shirt whose marked price in shs.800 is sold to customer after allowing him a discount of 13%. If the trader makes a profit of 20%, find how much the trader paid for the shirt.
8.	**2004 Q2 P2** The marked price of a car in a dealer's shop was Kshs 400,000. Wekesa bought the car at 8% discount. The dealer still made a profit of 15%. Calculate the amount of money the dealer had paid for the car.

9.	**2011 Q11 P1** A customer paid Ksh 5880 for a suit after she was allowed a discount of 2% on the selling price. If the discount had not been allowed, the shopkeeper would have made a profit of 20% on the sale of the suit. Calculate the price at which the shopkeeper bought the suit. (3marks)
10.	**2012 Q14 P1** A Forex Bureau in Kenya buys and sells foreign currencies as shown below: | Currencies	Buying (Ksh)	Selling (Ksh)
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Chinese Yuan	12.34	12.38

South African Rand	11.28	11.37	
			
			A business woman from china converted 195 250 Chinese Yuan into Kenya Shillings.
			
			     Calculate the amount of Money, in Kenya shillings, that she received. (1mark)
			
			  (a) While in Kenya, the businesswoman spent Ksh 1 258 000 and then converted the balance to South African Rand. Calculate the amount of money, to the nearest Rand, that she received. (3marks)

(b) EXCHANGE RATES

	KCSE 1989 – 2012 Form 1 Mathematics
1.	**1990 Q6 P1** A Kenyan businessman bought a car from Zimbabwe for 12,000 Zimbabwean dollars. He sold it in Kenya at a profit of 15% . Given that 1 Zimbabwean dollar is equal to sh. 98489, calculate his profit in Kenya shillings. (3marks)

2.	**1993 Q6 P2**
	
	A Kenyan businessman owes US$ 100,000 to a company in the United States of America. The Kenyan can either pay through his account in Kenya or through his account in the United Kingdom. Which method is cheaper and by how much?
	 (Give your answer in Kenyan shillings given that:
	     1 US dollar = 28.74 Kenyan shillings.
	     1 Sterling pound = 1.79 US dollar
	     1 Sterling pound = 50.80 Kenyan shillings (4marks)

3.	**1994 Q11 P2**
	
	The cost of a car outside Kenya is US $5,000. You intended to buy one such car through an agent who deals in Japanese Yen. The agent will charge you 20% commissions on the price of the car and a further 80,325 Japanese Yen for shipment of the car. How many Kenya shillings will you need to send to the agent to obtain the car, given that:
	     1 US$ = 105.00 Yen
	     1 US $ = Ksh 63.00 (3marks)

4.	**1996 Q4 P2** A traveler had sterling pounds 918 with which he had bought Kenya shillings at the rate of Ksh 84 per sterling pound. He did not spend the money as intended. Later, he used the Kenyan shilling to buy sterling pounds at the rate of Ksh 85 per sterling pound. Calculate the amount of money in sterling pounds lost in the whole transaction (3marks)

5.	**1997 Q3 P2**
	
	A commercial bank buys and sells Japanese yen in Kenya shillings at the rates shown below.
	     Buying Selling
	   Kshs 0.5024 Kshs. 0.5446
	
	A Japanese tourist at the end of his tour of Kenya was left with Kshs 30,000 which he converted to Japanese yen through the commercial bank. How many Japanese yen did he get?

6.	**1998 Q6 P2**
	
	During a certain period, the exchange rate were follows
	       1 sterling pound = Kshs. 102.0
	       1 sterling pound = Kshs. U.S dollar
	       1 U.S dollar = Kshs. 60.6
	
	A school management intended to import textbooks worth Kshs 500,00 from U.K. It changed the money to sterling pounds. Later the management found out that books were cheaper in U.S.A. Hence it changed the sterling pounds to dollars. Unfortunately, a financial crisis arose and the money had to be reconverted to Kenya shillings.
	Calculate the total amount of money the management ended up with

7.	**2002 Q7 P1**
	A kenyan tourist left Germany for Kenya through Switzerland. While in Switzerland he bought a watch worth 52 deutsche Marks. Find the value of the watch in:
	(a) Swiss Francs.
	(b) Kenya Shillings
	Use the exchange rates below:
	1 Swiss Franc = 1.28 Deutsche Marks. (3mks)
	1 Swiss Franc = 45.21 Kenya Shillings
8.	**2004 Q14 P2**
	In this questions, mathematical tables should not be used
	At Kenya bank buys sells foreign currencies as shown below:

	Buying (Kenya Shillings	Selling (Kenya Shillings)
1 Euro	84.15	84.26
100 Japanese yen	65.37	65.45

A Japanese traveling from France arrives in Kenya with 5000 Euros; he converts all the 5000 Euros to Kenya Shillings at the bank.

Calculate the amount in Japanese yen, than he receives.

9.	**2006 Q7 P1**

In this question, mathematical table should not be used
A Kenyan bank buys and sells foreign currencies as shown below

	Buying (In Kenya shillings)	Selling In Kenya Shillings
1 Hong Kong dollar	9.74	9.77
1 South African rand	12.03	12.11

A tourists arrived in Kenya with 105 000 Hong Kong dollars and changed the whole amount to Kenyan shillings. While in Kenya, she pent Ksh 403 897 and changed the balance to South African rand before leaving for South Africa.

Calculate the amount, in South African rand that she received.

10.	**2007 Q4 P1**

A Kenyan businessman bought goods from Japan worth 2, 950 000 Japanese yen. On arrival in Kenya custom duty of 20% was charged on the value of the goods.

If the exchange rates were as follows
          1 US dollar = 118 Japanese Yen
          1 US dollar = 76 Kenya shillings
Calculate the duty paid in Kenya shillings   (3 marks)

11.	**2010 Q6 P1**
	A Kenyan company received US Dollars 100,000.The money was converted into Kenya shillings in a bank which buys and sells foreign currencies as follows:

	Buying (in Kenya shillings)	Selling (in Kenya shillings)
1 US Dollar	77.24	77.44
1 Sterling Pound	121.93	122.27

(a) Calculate the amount of money, in Kenya shillings, the company received.
   (2 mks)

(b) The company exchanged the Kenya shillings calculated in (a) above, into sterling pounds to buy a car from Britain. Calculate the cost of the car to the nearest sterling pound.   (2 mks)

12.	**2012 Q14 P1**
	A Forex Bureau in Kenya buys and sells foreign currencies as shown below:

Currencies	Buying (Ksh)	Selling (Ksh)
Chinese Yuan	12.34	12.38
South African Rand	11.28	11.37

A business woman from china converted 195 250 Chinese Yuan into Kenya
   Shillings.

 (a) Calculate the amount of Money, in Kenya shillings, that she received.
    (1mark)

 (b) While in Kenya, the businesswoman spent Ksh 1 258 000 and then converted the balance to South African Rand. Calculate the amount of money, to the nearest Rand, that she received.   (3marks)

c) COMMISSIONS

	KCSE 1989 – 2012 Form 1 Mathematics *Answer all the questions*

1.	**1989 Q10 P1**
	A salesman earns a basic salary of sh 1500 per month. In addition he is paid commission as follows
	                                                        Commission
	  For sales up to sh 50,000 0%
	  For sales above sh 50,000
	    (i) For the first sh 25000 2%
	    (ii) For the next sh 25000 $2^1/_2$%
	
	For any amount above sh 100,000 5%
	During one month, he sold goods worth sh 115, 000
	  (a) How much commission did he get? (2marks)
	  (b) What was the total pay that month? (2marks)

2.	**1991 Q12 P2** A car bought for sh 80,000 was sold through a dealer at a profit of 15%. The dealer charged the owner 8% commissions on the selling price. How much did the owner get?
3.	**1996 Q7 P1** Mr. Ngeny borrowed Kshs. 560,000 from a bank to buy a piece of land. He was required to repay the loan with simple interest for a period of 48 months. The repayment amounted to Kshs 21000 per month. Calculate (a) The interest paid to the bank (2 marks) (b) The rate per annum of the simple interest (4 marks)
4.	**1996 Q9 P1** A car dealer charges 5% commission for selling a car. He received a commission of Kshs 17,500 for selling a car. How much money did the owner receive from the sale of his car? (2 marks)
5.	**1998 Q5 P1** A salesman gets a commission of 2.4% on sales up to Kshs 100,000. He gets an additional commission of 1.5% on sales above this. Calculate the commission he gets on sales worth Kshs 280.000
6.	**1999 Q5 P2** In the month of January, an insurance salesman earned Kshs 6750 which was a commission of 4.5% of the premium paid to the company. A salesman earns a basic salary of Kshs. 9000 per month In addition he is also paid a commission of 5% for sales above Kshs 15000 .In a certain month he sold goods worth Kshs. 120, 000 at a discount of 2 ½ % Calculate his total earnings that month (3 marks)

7.	**2010 Q17 P1**

A saleswoman is paid a commission of 20% on goods sold worth over Ksh 100,000.She is also paid a monthly salary of Ksh 12,000.In a certain month, she sold 360 handbags at Ksh 500 each.

(i) Calculate the saleswoman's earnings that month.

(3 mks)

The following month, the saleswoman's monthly salary was increased by 10%.Her to total earnings that month were Ksh 17,600.

Calculate:

(i) The total amount of money received from the sales of handbags that month. (5mks)

(ii) The number of handbags sold that month (2 mks)