

L2 Business Calculations

Overview of content

1. The small business
2. Wages, salaries and commission
3. Partnerships
4. Business trading documents
5. Currency exchange
6. Hire purchase and leasing
7. Simple and compound interest
8. Averages

GROUP 1 – SELECT SEVEN (x4 marks each)

Qu1

A company produces and sells £1,000,000 worth of products. The cost of making the products it sells is £200,000 but the factory has the following costs during the year:

Staff costs of \$750,000

Energy costs of \$10,000

Insurance cost of \$2,500

Premises rent of \$50,000

Calculate the net profit for the year.

Ans = [-\$12,500]

INSERT VALUE

Qu2

A company produces and sells £1,000,000 worth of products. The cost of making the products it sells is £200,000 but the factory has the following costs during the year:

Staff costs of \$750,000

Energy costs of \$10,000

Insurance cost of \$2,500

Premises rent of \$50,000

Calculate the gross profit for the year.

Ans = [\$800,000]

INSERT VALUE

Qu3

A car is offered on sale for \$36,800. I can purchase the car through a finance offer that requires me to pay a deposit of 18% and then make additional payments in monthly instalments over 3 years.

How much deposit will I need to purchase the car?

A	\$6,624	✓
B	\$3,980	
C	\$19,872	
D	\$7,884	

MCQ

Qu4

The insurance premium for a house has risen by 8% for each of the last two years. If it was \$640.00 per annum in 2023, what will the new premium be for 2025?

A	\$746.50	✓
B	\$691.20	
C	\$806.22	
D	\$724.32	

MCQ

Qu5

Fill in the missing words in the passage.

In a business, the [fixed costs] include building rent, employee wages and website charges. These costs amount to \$84,200 this year. If the total revenue from [sales] for the year is \$210,440 and the cost of sales is \$120,500, the [net] profit will be \$[5,740].

Options:

[fixed costs] [variable costs] [sales] [profits] [charges] [5,740] [[5,850] [5, 920]
[net] [gross]

PICK LIST one mark each

Qu 6

Thomas pays \$9.10 per month for his mobile phone rental and makes 130 calls each month, all costing \$0.65 each. What would be the effective unit cost of each call?

Ans = [0.72]

INSERT VALUE

Qu7

My monthly electricity bill consists of two elements: a standing charge of \$14.60 per month and a charge of \$0.36 for each kW of electricity used. If I use 260kW in one month, what will be the total bill?

Ans = [108.20]

INSERT VALUE

Qu8

Majid works at a local factory. He earns \$12.50 per hour for a regular 36-hour week. He also able to work some additional hours at a rate of 1.2 times his normal pay.

How much will he earn if he works a total of 44 hours in one particular week?

Ans = [570.00]

INSERT VALUE

Qu9

Karina is allowed to earn £12,750 per year tax free but anything above this will be liable for income tax at a rate of 20%. If she earns £1,650 each month, how much net pay will she receive in a year?

A	£18,390	✓
B	£19,800	
C	£15,840	
D	£17,220	

MCQ

Qu10

Elliana earns commission on each of her sales for a pharmaceutical company. She receives 2% commission on the first \$10,000 of sales but 3.5% on any sales above that.

If she makes sales worth \$48,000 in a three-month period, how much commission will she earn?

Ans = [1,530]

INSERT VALUE

Qu11

An employee at Western bank is eligible to contribute to a voluntary pension scheme. If employees join the scheme, they will be required to contribute 4.5% of their salary. In addition, their employer will contribute 7% of the employee's salary.

By how much will the pension fund grow in a year if the employee earns an annual salary of £50,000?

Ans = [5,750]

INSERT VALUE

GROUP 2 – SELECT FIVE (x4 marks each)

Qu12

Mr A and Miss B are partners in a small partnership. Under the terms of their partnership they will receive shares of the profits in the same proportion as their initial investments. As Mr A invested \$15,000, whilst Miss B invested \$20,000, the profits for last year of \$129,500 will be shared such that Mr A receives [\$55,500] and Miss B receives [\$74,000]

Options:

[\$55,500] [\$52,500] [\$58,400] [\$74,000] [\$76,500] [\$75,600]

PICK LIST two marks each

Qu 13

Mrs Patel initially invested \$25,000 in a small factory, representing a 40% ownership of the business. After four years, the value of the business has grown to \$1.2m. By how much has the value of her stake in the business grown at the end of the four years?

Ans = [\$455,000]

INSERT VALUE

Qu14

Fill in the blanks in the passage

The distribution of profits and losses in a partnership is usually determined by the partnership [agreement], which should include details of the amount each partner contributes to the business, their [percentage] ownership and how any profits or losses will be shared among them. Partnerships can split profits any way they want,

as long as [all] partners agree. Unless otherwise stated, profits and losses are typically shared [equally] among partners.

FILL IN BLANKS one mark each

Qu15

Three partners share the equity in their company in the following way: 50%, 30% and 20%. If the smallest share is considered to be worth \$63,000, what are the other two partners' shares worth?

A	\$94,500	✓
B	\$157,500	✓
C	\$102,500	
D	\$98,000	

MRQ two marks each but two off for each wrong answer

Qu16

Match the following documents to the correct function of business trading

[Invoice] [Commercial]
[Bill of lading] [Transport]
[Import licence] [Legal]
[Letters of credit] [Banking]

MATCH ITEMS one mark each

Qu17

Match the definition to the correct type of discount:

[Trade discount] [offered by the distributors of a product to a retail shop owner]
[Quantity discount] [offered to attract customers to generate further purchases]

[Promotional discount] [offered to generate interest in a product, often as part of an advertising campaign]

MATCH ITEMS one mark each but four for all correct

Qu18

Discount pricing is often used as part of a promotional pricing strategy to achieve which of the following?

A	Get inventory moving	✓
B	Drive Sales	✓
C	Increase customer traffic	✓
D	Increase profits	

MRQ one mark each but one off for incorrect answer – four marks if correct three selected

Qu19

Fill in the blanks on the passage below.

An invoice is a document used to request payment for products or services [sold]. It includes a summary of what was ordered, a breakdown of [costs] and instructions for [payment]. Invoices are used by seller to collect payment at a later date, while [bills] are used for immediate payment.

FILL IN BLANKS one mark each

Qu20

Invoices are used to show the payment that is owed but credit notes are issued to [cancel] an invoice or show a return of [money]. In accounting, invoices show a [positive] amount of money coming into a business, while a credit note shows outgoing money as a [negative] transaction.

Options:

[cancel] [permit] [allow] [positive] [negative] positive] [negative] [money] [credit] [debt]

PICK LIST

GROUP 3– SELECT SIX (x4 marks each)

Qu21

A car cost 42,600 euro in Italy. What would be the equivalent cost in pounds sterling if the conversion rate is 1.08 to the pound? Give your answer to the nearest pound.

[39,444]

INSERT VALUE

Qu22

How much money will I receive in euros for my holiday if I exchange £450 at a rate of 1 euro = £0.90?

[500]

INSERT VALUE

Qu23

If I change £200 into US dollars at an exchange rate of £1 = \$1.24, how much will I receive if I have to pay a commission of 8%?

[218.16]

INSERT VALUE

Qu24

By how much is \$35 more than 25 euros if the following exchange rates apply? State your answer in pounds

\$1 = £0.90 and 1 euro = £0.96

[7.50]

INSERT VALUE

Qu25

Fill in the blanks in the passage below.

A contract for a hire [purchase] agreement for the purchase of a car from a dealership requires the buyer to pay an initial [deposit] of 20% of the [retail] price, followed by 36 monthly instalments. Interest will be charged at an agreed rate of interest on the outstanding [balance].

FILL IN BLANKS one mark each

Qu26

What will be the monthly payments for a product bought through a hire purchase agreement involving 12 instalments, which involves a deposit of \$120 and has a total cost of \$1020?

[75.00]

INSERT VALUE

Qu27

What will be the total cost of a product purchased through a hire purchase agreement if the retail price of the product is £1,800 and a deposit of 15% of this is required, with 12 monthly instalments of £144?

A	£1,998	✓
B	£1,728	
C	£2,012	
D	£1.844	

MCQ

Qu28

Fill in the blanks in the passage.

Hire purchase enables those customers without the ability to pay for a car outright to purchase a car. The cost of the car is spread over a period of time and paid by [monthly] instalments, rather than a large [single] payment. Even though they have not paid for the car in full, they are still able to use it and drive it. The vehicle is owned by the purchaser once the [final] payment has been made, as opposed to [leasing] a vehicle which is effective renting the car.

FILL In BLANKS one mark each

Qu29

Hamid purchases a new car through a hire purchase agreement. The retail price of the car is £27,500. He pays an initial deposit of 20% of the retail price and agrees to pay the remaining balance as 36 monthly payments of £650.

After two years, he decides to pay off the remaining outstanding sum but will need to pay an additional penalty charge of 8% of the outstanding balance. How much is the penalty payment?

A	£624.00	✓
B	£650.00	
C	£458.33	
D	£495.00	

MCQ

GROUP 4 – SELECT SIX (x4 marks each)

Qu30

Which of the following statements are true?

A	The interest rate is the percentage of the principal that is added on over the course of one year as interest	✓
B	The interest rate charged or earned depends on a lot of factors, including the	✓

	financial conditions in the country at the time.	
C	The interest rate, including any fees charged over one year, to borrow money is known as Annual Equivalent Rate, AER	
D	The interest rate, including and fees charged over one year, to lend money is known as Annual Percentage Rate, APR.	

MRQ one mark each but one off for any incorrect answers

Qu31

A savings account offers 7.5% interest a year on the account balance. How much will \$2,500 invested in this account earn as interest in a year?

[187.50]

INSERT VALUE

Qu32

A savings account offers 5.2% interest a year on the account balance. How much will \$700 invested in this account earn as simple interest over a period three years?

A	\$109.20	✓
B	\$36.40	
C	\$114.98	
D	\$105.00	

MCQ

Qu33

A savings account offers 4.8% interest a year on the account balance as compound interest. How much will \$8,500 invested in this account be worth after a period three years? Give your answer to the nearest cent.

[9783.69]

INSERT VALUE

Qu34

I can borrow the sum of £500 from a bank at a rate of interest of 7.2% per year for three years. I make no repayments during the course of the loan. How much will I need to repay at the end of the three-year period, assuming simple interest?

[608]

INSERT VALUE

Qu35

Peter has recorded the number of letters he receives each day for a week.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Number of letters	3	12	5	12	7	3	0

Calculate the mean and the mode values.

[Mean = 6] [Mode = 12]

Options

[Mean = 6] [Mode = 12] [Mean = 12] [Mean = 5] [Mode = 6] [Mode = 6]

PICK LIST

Qu36

Joanna has recorded the number of new enquiries her business receives each month for six months. What is the median number of enquiries?

	January	February	March	April	May	June
Number of letters	56	76	84	72	88	95

[81]

INSERT VALUE

Qu37

The mean number of complaints received by a business during a five-month period is found to be 14. If August had 12 complaints, September had 9, October had 17 and November had 12, how many complaints were made in December?

A	20	✓
B	14	
C	18	
D	24	

MCQ

Qu38

The daily numbers of sales made by the sales team of a small company are shown below.

Number of sales	2	3	4	5	6	7	8
Frequency	3	7	9	6	5	2	1

Calculate the mean number of sales made per day by the sales team.

[4.4]

INSERT VALUE

Qu39

The pay increases given to 1000 employees in a company over the course of last year are shown below.

Employee category	Pay increase (%)	Number of employees
Manual	1	700
Administration	3	200
Management	8	100

Calculate the mean pay rise during the year.

[2.1%]

INSERT VALUE

Qu40

Fill in the blanks in the passage.

A weighted average is a type of [mean] value that gives differing importance to the values in a [dataset]. In contrast, a standard [arithmetic] mean gives [equal] weight to all observations. Weighted averages are commonly used where a degree of significance is assigned to each of the quantities that are needed to be averaged.

FILL IN BLANKS one mark each

MCQ GROUP – SELECT SIX (x2 marks each)

Qu41

Maria drives a car that has a fuel tank with a capacity of 48 litres. Petrol costs £1.44 per litre and she estimates that she is able to drive a maximum of 432 miles on a full tank of petrol. What is her overall cost of petrol per mile?

A	16p	✓
B	18p	
C	9p	
D	12p	

MCQ

Qu42

Majid works at a local factory. He earns \$12.50 per hour for a regular 36-hour week. He also able to work some additional hours at a rate of 1.2 times his normal pay.

How many hours will he have worked if he earns a total of \$615.00 in one particular week?

A	11	✓
B	13	
C	12	
D	16	

MCQ

Qu43

Anna can earn £12,750 per year tax free but anything above this will be liable for income tax at a rate of 20%. If she earns £1,500 each month, how much tax will be deducted in a year?

A	£1.050	✓
B	£1,170	
C	£1,200	
D	£1,870	

MCQ

Qu44

What type of distribution is a standard method of dividing profits and losses in a partnership, where the partners have initially invested the same sums of money into the new business?

A	Equal	✓
B	Variable	
C	Random	
D	Selective	

MCQ

Qu45

What is the value of pounds sterling of \$5,760 if the £1 is worth \$1.20?

A	\$4,800	✓
B	\$6,912	
C	\$4,608	
D	\$5,530	

MCQ

Qu 46

ABC Biscuits produces packs of chocolate biscuits at a unit cost of \$1.10 per pack. If the mark up is set at 40%, what is the selling price?

A	\$1.54	✓
B	\$1.50	
C	\$1.40	
D	\$1.48	

MCQ

Qu47

A small family business is owned by the two parents (who share one half of the value of the business) and their four children (who share the remaining half). If the initial equity in the business was \$44,000 and it has risen by 72% since the business was started, how much equity does each of the children now hold?

A	\$12,163	✓
B	\$12,358	
C	\$24,326	
D	\$16,464	

MCQ

Qu48

On a certain day in 2013, \$246.44 was worth exactly £202. What was the value of £1 in dollars?

A	1.22	✓
B	0.82	
C	4.44	
D	1.12	

MCQ

Qu49

A washing machine is available on a hire purchase agreement for a deposit of £65.00 plus 12 monthly repayments of £42.50. What is the total cost of the washing machine?

A	£575.00	✓
B	£510.00	
C	£445.00	
D	£737.50	

MCQ

Qu50

The number of customers of a business has been found to increase by exactly 12% each year. If the business started five years ago with 200 customers, how many customers could it now expect to have?

A	352	✓
B	224	
C	336	
D	318	

MCQ

TOTAL AVAILABLE MARKS = 108