Multiple-choice section – choose the correct answer

Question 1 [1.1]

Siobhan scores 17 goals from 27 shots in a game of netball. Calculate her shooting accuracy as a percentage, to the nearest whole number.

A 62% B 63% C 64% D 65%

Question 2 [1.2]

What is the sale price of a $3350 computer that is discounted by 20%, then by a further 10% of the discounted price?

A $1005 B $2345 C $2412 D $2680

Question 3 [1.3]

Michael works as a real estate agent. In a week, he earns a retainer of $150.00 plus 2.1% of the value of any property he sells. In one week of work, he sells one property for $380 000 and another for $675 000. What does Michael earn in that week?

A $7980 B $14 175 C $22 155 D $22 305

Question 4 [1.4]

Roushad is a nurse who earns $52 500 per annum. He donates $10.00 per week to recognised charities and pays a yearly membership fee of $185 to the Nurses Federation. What is his taxable income?

A $51 795 B $51 980 C $51 520 D $50 480

Question 5 [1.5]

$700.00 is invested in a bank account paying simple interest. Calculate the interest rate per annum if $162.40 of interest is earned after four years.

A 0.058% B 3.2% C 5.8% D 17.24%

Question 6 [1.6]

The ironically named Free Bank has the following monthly fees:

\* $4.00 account-keeping

\* $0.30 for the first five withdrawals from a Free Bank ATM

\* $0.40 for additional withdrawals from a Free Bank ATM

\* $1.50 for withdrawals from the ATM of a different bank

\* $0.70 per EFTPOS transaction

\* $0.30 per online transfer

In one month, Madeleine withdraws 10 times from a Free Bank ATM, two times from a different bank’s ATM, completes six EFTPOS transactions and one online transfer. What does she pay in charges?

A $11.00 B $12.00 C $13.00 D $15.00

Question 7 [1.7]

Harriet uses a 5100 W clothes drier for 45 minutes each day. The respective weekly energy consumption and running cost of the clothes drier, given that the tariff is 18.9 cents/kWh, are:

A 26.8 kWh; $0.72/week B 3.9 kWh; $5.06/week   
C 26.8 kWh; $5.06/week D 3.9 kWh; $43.38/week

Question 8 [1.8]

Samantha has a 12-month internet plan with a minimum monthly spend of $49. Her contract states that the early exit fee is the minimum monthly spend multiplied by the number of months left on her contract, plus an extra $250.00 if she leaves within the first 6 months. Samantha exits the plan after 3 months. What is her early exit fee?

A $49 B $250 C $441 D $691

Multiple-choice results: \_\_\_ / 8

Short answer section

Question 9 3 marks [1.1]

Calculate the following amounts.

(a) 60% of $210 (b) % of $50 (c) 12.4% of $1080

Question 10 2 marks [1.1]

Decrease $140 by 32% then increase the result by 18%. State your answer correct to the nearest cent.

Question 11 2 marks [1.2]

A local sports store has a policy of marking up the cost prices of their goods by 80%, then adding GST (10%). Calculate the cost price of a tennis racket which has a marked-up price of $199 including GST.

Question 12 3 marks [1.3]

Cheong is paid an additional 10% for any weekday hours worked after 6 pm, an extra 25% for any hours worked on a Saturday, and an extra 75% for any hours worked on a Sunday. Here is Cheong’s record of his hours worked for one week. Calculate his wage.

Monday: 9 am–1 pm

Wednesday: 3 pm–7 pm

Friday: 2 pm–9 pm

Saturday: 10 am–3 pm

Sunday: 10 am–1 pm

Question 13 4 marks [1.4]

The following table shows the Australian income tax rates in the 2015–2016 financial year.

|  |  |
| --- | --- |
| **Taxable income** | **Tax on this income** |
| $0 – $18200 | Nil |
| $18201 – $37 000 | 19c for each dollar over $18200 |
| $37 001 – $80 000 | $3572 + 32.5c for each dollar over $37 000 |
| $80 001 – $180 000 | $17 547 + 37c for each dollar over $80 000 |
| $180 001 and over | $54 547 + 45c for each dollar over $180 000 |

(a) Kun’s taxable income is $73 000. How much tax would he pay in one year?

(b) Sabreen’s taxable income is $93 000. How much tax would she pay in one year?

Question 14 3 marks [1.5]

$5000 is invested at a simple interest rate of 6.12%. How long will it take for the money to double? Answer in years and months.

Question 15 3 marks [1.6]

Dorothea purchases $600.00 worth of garden pavers on lay-by. She pays a deposit of $150.00 and then pays $30.00 each week until the pavers have been fully paid.

(a) Dorothea wishes to begin paving during September which is five months (20 weeks) away. Will she be able to achieve this goal under her current lay-by plan? Explain your answer using mathematics.

(b) By the time Dorothea gets to her last payment, how much does she owe?

Question 16 3 marks [1.7]

(a) Tarin receives his gas bill and is $68.20 in credit. His new charges, before GST, are $312.70. GST of 10% is applied to the new charges. Taking his credit amount into account, what does Tarin owe on this bill?

(b) Jane’s household used 15 569 MJ of energy when burning gas over the last billing cycle. At her property, the heating value is 48.23 (this refers to the number of MJ produced by burning 1 m3 of gas). The correction factor is 1.001. Calculate the volume of gas burnt by Jane’s household by using the rule: energy (MJ) = volume (m3) × heating value × correction factor. State your answer correct to 2 decimal places.

Question 17 4 marks [1.7]

Carla, who is environmentally unaware, has 14-minute showers. Her showerhead delivers

16 L/minute. Her water tariff is $1.29/kL (kilolitres). If Carla halves her shower time and also installs a water-efficient showerhead that delivers 9L/minute:

(a) How much water, in kL, will she save in one year? (Assume she has one shower per day.)

(b) How much money will she save on her water bills in one year?

Question 18 4 marks [1.8]

Irene estimates that she makes six 5-minute calls and sends 18 text messages per day.

On her plan, calls cost 32 cents per minute with a flagfall of 26 cents and text messages cost 24 cents. Irene pays a cap of $49.95 per month and this covers $450.00 worth of calls. Irene’s bill includes the cap amount plus any amount over $450.00. Irene also pays $24.05 per month to pay for the cost of the phone. Assuming a 31 day month, calculate the average cost of her monthly bill.

Short answer results: \_\_\_ / 31

Extended answer section

Question 19 7 marks [1.6]

Daniela wants to buy a $5000.00 lounge suite but does not have the money. She commits to a payment plan. Initially, she pays an additional application fee of $50.00 plus a deposit of $400.00. She must make a minimum monthly payment of 5% of the amount left after the deposit and pay a monthly account fee of $4.80. Daniela is offered an interest-free period of 12 months. If the balance has not been paid by the end of this time, Daniela must pay 28% p.a. interest, on the amount still owed after 12-months, each month until the loan has been repaid.

(a) How much does Daniela pay in fees over the first 12 months of repayments?

(b) Initially, Daniela is determined to repay the loan within 12 months. After her initial application fee and deposit, how much must she pay each month, inclusive of fees, to ensure that this will occur?

(c) Daniela realises that she cannot afford to repay the loan within 12 months. Calculate the minimum amount she will need to repay each month (remember to include any fees).

(d) If Daniela pays the minimum amount calculated in (c), how much does she still owe after 12 repayments?

(e) Calculate the amount of interest Daniela will be required to pay in the 13th month (assume 30 days in the month).

Question 20 8 marks [1.4]

The following table shows the Australian income tax rates in the 2015–2016 financial year.

|  |  |
| --- | --- |
| **Taxable income** | **Tax on this income** |
| $0 – $18200 | Nil |
| $18201 – $37 000 | 19c for each dollar over $18200 |
| $37 001 – $80 000 | $3572 + 32.5c for each dollar over $37 000 |
| $80 001 – $180 000 | $17 547 + 37c for each dollar over $80 000 |
| $180 001 and over | $54 547 + 45c for each dollar over $180 000 |

Tarren earns a gross salary of $84 000.

(a) Use the table to calculate the tax Tarren would pay.

(b) If Tarren decided to make a voluntary superannuation contribution or charitable tax deduction, he could move to a lower tax bracket. What would be the minimum amount of money that Tarren would need to commit annually to make this happen?

(c) Tarren decides to make a voluntary superannuation contribution of $200 per month and donate $2000 to recognised charities. Calculate how much tax he would pay.

(d) Australian taxpayers currently pay a Medicare levy of 1.5% of their taxable income. Assume no additional surcharge has to be paid. This helps to pay for Australia's healthcare system. Calculate Tarren’s Medicare levy.

(e) Calculate Tarren’s net income, taking tax and the Medicare levy into account. Assume Tarren has made the contributions noted in (c).

Extended answer results: \_\_\_ / 15

TOTAL test results: \_\_\_ / 54