Multiple-choice section

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Answer | B | A | B | D | D | B | B | D |

Question 1 [1.1]

B

= 63%

Question 2 [1.2]

A

0.4 × $260 = $104

$260 – $104 = $156

Question 3 [1.3]

B

0.038 × ($15 000 + $12 999) + $180 = $1243.96

Question 4 [1.4]

D

$10 × 12 = $120

$115 + $120 = $235

$39 320 – $235 = $39 085

Question 5 [1.5]

D

*I* = *PrT*

$990 × 0.049 × 8 = $388.08

Question 6 [1.6]

B

fees = $6.00 + (4 × $0.10) + (8 × $0.90) + (5 × $1.80) + (2 × $0.50) + (3 × $0.10)

= $23.90

Question 7 [1.7]

B

4020 W = 4.02 kW

4.02 kW × 3 = 12.06 kWh

12.06 kWh × $0.162 = $1.95

Question 8 [1.8]

D

24 – 5 = 19 months remaining on contract

$58 × 19 = $1102

$1102 + $110 = $1212

Multiple-choice total marks: 8

Short answer section

Question 9 2 marks [1.4]

Some stores allow customers to buy on terms. Under this arrangement, customers are often given an interest-free period. After this time, if the loan has not been fully paid off, customers are expected to pay a high rate of interest. To avoid potentially paying interest, some people choose to use cash or EFTPOS to pay for goods rather than a credit card.

Question 10 2 marks [1.1]

(a) 0.15 × $28 = $4.20

(b) 1.18 × $90 = $106.20

Question 11 2 marks [1.1]

original price = $4.80 + $1.50

= $6.30

therefore,  = 23.8%

Question 12 2 marks [1.2]

100% + 50% = 150%

= 1.5

1.5 × original price = $24.30

original price = 

= $16.20

Question 13 4 marks [1.3]

time-and-a-half rate = $14.20 × 1.5 = $21.30

double-time rate = $14.20 × 2 = $28.40

Question 14 3 marks [1.3]

daily: 1340 × 0.07 = $93.80

weekly: $93.80 × 5 = $469.00

3 weeks: $469 × 3 = $1407.00

Question 15 3 marks [1.4]

(a) income = $70 000

bracket = $37 001 – $80 000

(b) income = $70 000

bracket = $37 001 – $80 000

tax = $3572 + 32.5c for each dollar over $37 000

70 000 – 37 000 = 33 000

tax = $3572 + 32.5c × 33 000

= $14 297

(c) income = $90 000

bracket = $80 001 – $180 000

(d) income = $90 000

bracket = $80 001 – $180 000

tax = $17 547 + 37c for each dollar over $80 000

90 000 – 80 000 = 10 000

tax = $17 547 + 37c × 10 000

= $21 247

Question 16 3 marks [1.4]

voluntary contribution = $200 × 12 = $2400

employer contribution = 0.09 × 200 000

= $18 000

total = $2400 + $18 000

= $20 400

Question 17 3 marks [1.5]

(a) $9000 × 0.22 × 0.25 = $495

(b) $9000 × 0.22 ×  = $12 210

In total, Claude repaid $9000 + $12 210 = $21 210.

Question 18 3 marks [1.6]

(a) $370 – $70 = $300

$300 ÷ $15 = 20 weeks

Yes, Monica can begin her art course during December.

(b) $15.00 ($15 divides evenly into $300.00)

Question 19 3 marks [1.7]

(a) 1 267 000 L

(b) 5.09 kW

(c) 1 000 000 J

Question 20 3 marks [1.7]

(a) 16 × 18 = 288 L

(b) 288 × 365 = 105 120 L in one

(c) 105 120 ÷ 1000 = 105.12 kL

105.12 × $1.32 = $138.76

Question 21 2 marks [1.7]

**(a)** 1.1 × $210.65 = $231.715

$231.715 – $112.91 = $118.81

**(b)** 14 630 = *V* × 38.43 × 1.002

*V* = 

= 379.93 m3

Question 22 1 mark [1.8]

$55.90 × 24 = $1341.60

Question 23 4 marks [1.8]

(a) 1-minute call: $0.38 + $0.77 = $1.15

2-minute call: $0.38 + (2 × $0.77) = $1.92

6-minute call: $0.38 + (6 × $0.77) = $5.00

text messages: 4 × $0.33 = $1.32

total: $1.15 + $1.92 + $5.00 + $1.32 = $9.39

(b) $20.00 – $9.39 = $10.61

Yes. He would have $10.61 credit remaining.

Short answer total marks: 40

Extended answer section

Question 24 7 marks [1.6]

(a) 12 × $5.20 = $62.40; $40.00 + $62.40 = $102.40

(b) After the initial fee of $40.00 and a deposit of $600, there is still $5900 + $62.40 of fees left to pay. Therefore, $5962.40 ÷ 12 = $496.87 monthly repayment.

(c) 0.06 × $5900 = $354.00; $354.00 + $5.20 (fee) = $359.20

(d) $359.20 × 12 = $4310.40

$5962.40 – $4310.40 = $1652.00 left owing

(e) *P* = $1652.00

*r* = 32% = 0.32

*T* = 

*I* = *PrT*

= 1652.00 × 0.32 × 

= $43.45

Extended answer total marks: 7

TOTAL test marks: 55