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Topic: Currency and Shares

Time: 45 mins   Marks: /45 marks

Calculator Assumed

Question One: [4, 2, 2: 8 marks]

a)   Margaret owns shares in the three companies shown in the portfolio below, which
         also shows the dividend per share for each holding.

Company	Number of Shares	Value per Share	Dividend per Share
ILY Group	2600	$0.71	$0.08
OMG Limited	1400	$4.90	$0.20
FOMO Inc.	790	$12.23	$1.01

      i)   Calculate the total value of this portfolio, based on the share value given.

      ii)   Calculate the total dividend the investor will receive.

b)   Determine the P/E (Price to Earnings ratio) of a company that has shares trading at
         $34 and for which the total earnings per share over the previous twelve months has
         been $1.50.

c)   A company has declared its annual dividend equal to 13% of its share price. What is
         the company's price to earnings ratio?

Question Two: [1, 3, 3, 3, 4: 14 marks]

The following are the foreign currency exchange rates per Australian Dollar on December 24th 2014. Each of the following questions are based on these exchange rates.

Units of foreign currency per AUS$
24 Dec 2014

United States dollar	0.8112
Chinese renminbi	5.0537
Japanese yen	97.65
European euro	0.6664
Singapore dollar	1.0740
New Zealand dollar	1.0498
UK pound sterling	0.5228
Malaysian ringgit	2.8368
Thai baht	26.69
Indonesian rupiah	10116

a)   Which country gets the most return for their currency when exchanging into Australian dollars?

b)   Sharon is travelling overseas in the coming months. She has set aside AUS$500 as spending money for each of the three countries she will visit. If she plans to visit Indonesia, Malaysia and Singapore, how much spending money will she have in each country in their currencies?

c)   Aurelia is coming from France to learn English in Australia. She has enrolled in an English learning program. Her school fees cost 8000€ (European Euro), her flights cost 900€ and she paid 275€ to be placed with a host family.

   i)   What is her total spend in AUS$?

   ii)   Aurelia takes a trip to Bali in Indonesia while she is in Australia. At the airport the cash exchange desk has 1€=14725.49 IDR.

   The official rate is 1€=15026.23 IDR.

   What percentage profit does the exchange desk make?

d)   Ming lives in China and has booked a hotel in London. The hotel cost 64.28£/night (64.28 UK Pound Stirling). If Ming is staying for 10 nights, what is the total amount she will see on her credit card statement (which is in Chinese Renminbi)?

Question Three: [4, 3, 9: 16 marks]

The following information is from the Australian Stock Exchange. Prices are from the close of trade December 24th 2014. Use this information to answer the following questions.

Share Price/Value

		Last Price	Change		
ANZ	ANZ BANK	$32.00	∧	$0.13	0.41%
APA	APA GROUP	$7.32	∨	-$0.06	-0.81%
ASX	ASX	$36.64	∧	$0.03	0.08%
AZJ	AURIZON	$4.62	∧	$0.01	0.22%
BHP	BHP BLT	$28.97	∧	$0.16	0.56%

Company Value

BHP	BHP BLT	$184,635,538.52
CBA	CWLTH BANK	$173,372,651.73
WBC	WESTPAC	$115,057,631.04
TLS	TELSTRA	$111,986,599.97
NAB	NAT. BANK	$107,103,463.93

a)   The share price at close of trade for ANZ and APA is $32.00 and $7.32 respectively. What was the previous share price for ANZ and APA?

b)   How many shares does the company BHP BTL have?

c)   Joshua owns 4500 shares in AURIZON, 1000 shares in ASX and 2900 shares in APA GROUP.

      i)   What is the total value of Joshua's share portfolio at close of trade December 24th 2014?

      ii)   Assuming Joshua owned these shares on 23rd December 2014, how much money has Joshua lost/gained in total?

      iii)   What percentage profit/loss has Joshua made on the value of his shares from 23rd December 2014 to 24th December 2014?

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Question Four: [4, 3 : 7 marks]

Sam owns shares in two companies, company A and company B.

The total value of Sam's share portfolio is $20 000 and in total he owns 45 000 shares.

a)   With a dividend per share of $0.05 for company A and $0.08 for company B, calculate the total dividend Sam will receive.

b)   If the value of the shares in company A is double the value of the shares in company B, calculate the value per share in for each company.

Currency and Shares SOLUTIONS

Time: 45 mins   Marks: /45 marks

Calculator Assumed

Question One: [4, 2, 2: 8 marks]

a)   Margaret owns shares in the three companies as shown in the portfolios bellows, which also shows the dividend per share for each holding.

Company	Number of Shares	Value per Share	Dividend per Share
ILY Group	2600	$0.71	$0.08
OMG Limited	1400	$4.90	$0.20
FOMO Inc.	790	$12.23	$1.01

i)   Calculate the total value of this portfolio, based on the share value given.

$2600 \times 0.71 + 1400 \times 4.90 + 790 \times 12.23$ ✓

$= \$18\,367.70$ ✓

ii)   Calculate the total dividend the investor will receive.

$2600 \times 0.08 + 1400 \times 0.2 + 790 \times 1.01$ ✓

$= \$1285.90$ ✓

b)   Determine the P/E (Price to Earnings ratio) of a company that has shares trading at $34 and for which the total earnings per share over the previous twelve months has been $1.50.

✓ $\dfrac{34}{1.50} = 22.67$ ✓

c)   A company has declared its annual dividend equal to 13% of its share price. What is the company's price to earnings ratio?

$\text{Price to earnings ratio} = \dfrac{\text{share price}}{\text{dividend}}$

$Price\ to\ earnings\ ratio = \dfrac{SP}{0.1 \times SP}$

$= \dfrac{1}{0.1} = 10$

✓   ✓

Question Two: [1, 3, 3, 3, 4: 14 marks]

The following are the foreign currency exchange rates per Australian Dollar on December 24th 2014. Each of the following questions are based on these exchange rates.

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New Zealand dollar	1.0498
UK pound sterling	0.5228
Malaysian ringgit	2.8368
Thai baht	26.69
Indonesian rupiah	10116

a) Which country gets the most return for their currency when exchanging into Australian dollars?

UK ✔

b) Sharon is travelling overseas, in the coming months. She has set aside AUS$500 as spending money for each of the three countries she will visit. If she plans to visit Indonesia, Malaysia and Singapore, how much spending money will she have in each country in their currencies?

✔

Indonesia = 5 058 000 Rupiah

Malaysia = 1418.40 Ringgit ✔

Singapore = 537 Dollars ✔

c)   Aurelia is coming from France to learn English in Australia. She has enrolled in an English learning program. Her school fees cost 8000€ (European Euro), her flights cost 900€ and she paid 275€ to be placed with a host family.

    i)   What is her total spend in AUS$?

    8000 + 900 + 275 = 9175   ✓

    91275 ÷ 0.6664 = $2963.69   ✓

    ✓

    ii)   Aurelia takes a trip to Bali in Indonesia while she is in Australia. At the airport the cash exchange desk has 1€ = 14725.49 IDR.

    The official rate is 1€ = 15026.23 IDR.

    What percentage profit does the exchange desk make?

    ✓

    $$\frac{15026.23 - 14725.49}{14725.49} \times 100 = 2.04\ \%\ \text{profit}$$ ✓

    ✓

d)   Ming lives in China and has booked a hotel in London. The hotel cost 64.28£/night (64.28 UK Pound Stirling). If Ming is staying for 10 nights, what is the total amount she will see on her credit card statement (which is in Chinese Renminbi)?

    64.28 £ = $122.95 AU   ✓

    $122.95 AU = 621.35 Chinese Renminbi   ✓

    621.35 Chinese Renminbi per night x 10 = 6213.52 Renminbi in total

    ✓   ✓

Question Three: [4, 3, 9: 16 marks]

The following information is from the Australian Stock Exchange. Prices are from the close of trade December 24th 2014. Use this information to answer the following questions.

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NAB	NAT. BANK	$107,103,463.93

a) The share price at close of trade for ANZ and APA is $32.00 and $7.32 respectively. What was the previous share price for ANZ and APA?

ANZ = 32 - 0.13 = $31.87 ✓✓

APA = 7.32 + 0.06 = $7.38 ✓✓

b) How many shares does the company BHP BTL have?

$$\frac{184\ 635\ 538.52}{28.97}$$ ✓

= 6 373 336 shares ✓ ✓

rounding

c)   Joshua owns 4500 shares in AURIZON, 1000 shares in ASX and 2900 shares in APA
      GROUP.

      i)   What is the total value of Joshua's share portfolio at close of trade December
             24th 2014?

             4500 x 4.62 + 2900 x 7.32 + 1000 x 36.64   ✓

             = $78 658   ✓

      ii)   Assuming Joshua owned these shares on 23rd December 2014, how much
             money has Joshua lost/gained in total?

             AURIZON : 4500 x 0.01 ↑ = $45   ✓

             ASX : 1000 x 0.03   ↑ = $30   ✓

             APA : 2900 x 0.06   ↓ = $174   ✓

             45 + 30 – 174 = $99 loss overnight   ✓

      iii)   What percentage profit/loss has Joshua made on the value of his shares from
             23rd December 2014 to 24th December 2014?

             ✓

             $$\frac{99}{78\ 658 - 45 - 30 + 174} \times 100 = 0.126\ \%\ loss$$ ✓

             ✓

Question Four: [3, 4 : 7 marks]

Sam owns shares in two companies, company A and company B.

He owns the exact same number of shares in company A and B.

The total value of Sam's share portfolio is $20 000 and in total he owns 45 000 shares.

a)   With a dividend per share of $0.05 for company A and $0.08 for company B, calculate the total dividend Sam will receive.

$$22500 \times 0.05 + 22500 \times 0.08 = \$2\,925$$

b)   If the value of the shares in company A is double the value of the shares in company B, calculate the value per share in for each company.

Let x be value of each share in company B

$$22500x + 22500(2x) = 20\,000$$

$x = \$0.30 \, (2dp)$

$\therefore$ *Value per share for company A $= \$0.60$ and company B $= \$0.30$*