Name: _____ Date: _____

Baldivis Secondary College

Year 11 Applications

Test 2, 2019

Topics – Simple, Compound Interest and Other Financial Considerations

	38
	=____ %

Total Time: ***41*** *minutes*

Total Reading: *3 minutes*

Total Working: *38 minutes*

Weighting: *5% of the year*

Equipment: *SCSA Formula Sheet; 1 page notes (A4 one side, **Unfolded**), CASIO ClassPad; Scientific Calculator*

Resource Free Section – 8 min 1 min reading time **[8 marks]**

1. [2 marks]

Determine the P/E (price to earnings ratio) of a company that has a share price of $2.00 and dividends in the last twelve months totalling $0.50 per share.

$\frac{2.00}{.50} = 4$ ✓ ✓ (2)

2. [3 marks]

Determine the total to be repaid on a loan of $20,000 invested at 10% per annum simple interest for 2 years.

$20,000 \times 0.1 \times 2 = \$4000$ ✓

Total $= \$24,000$ ✓ (3)

3. [3 marks]

Write down the calculation you would use to calculate the value of an investment of $6,700 after 8 years invested at 6.4% compounded bi-annually. (You do not need to solve it.)

$6700\left(1+\frac{0.064}{2}\right)^{16}$ ✓ ½ ½ ½ (3)

18

Resource Section – 30 min plus 2 min reading time **[30 marks]**

4. [2 marks]

How much simple interest is due after 35 days for an investment of $24000 invested at 5% per annum. (Give your answer to the nearest cent)

115.068 → $115.07 ✓✓

5. [2 marks]

Eliza invested money in a superannuation fund that paid 6.5% p.a. compounded monthly. How much did she invest if her investment grew to $72,500 in 10 years? Answer to the nearest ten dollars.

37914.77 → $37,910

✓✓

6. [4 marks: 2, 2 marks]

If we assume that the average annual rate of inflation were to remain steady at 4.5%, and has remained at this rate for several years leading up to now, how much would an item currently valued at $50, be worth

a) in 7 years time?

$50(1+0.045)^7 = \$68.04$

b) two years ago?

$45.60

7. **[2 marks]**

If it takes 3 years for $10000 to accumulate to $12600, find the compound interest rate when interest is compounded annually (correct to one decimal place)

8.0% ✓ 1 Ans

8. **[4 marks: 2, 2 marks]** ~~8%~~ ✓ 1 working

The following is Karen's bank account statement from August to September.

Date	Debit	Credit	Balance
Starting Balance			$740
3 Aug		$560	$1,300
11 Aug	$60		$1,240
12 Aug		$40	1280 ✓
5 Sept	$100		1180 ✓
17 Sept	$600		680
21 Sept		$520	1300

Any ½ each

Sept

a Complete the balance column.

b What is the minimum monthly balance for:

i. August (31 days)

$740 ✓ (1)

ii. September (30 days)

$680 ✓ (1)

9. [7 marks: 4, 3 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	v -$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?

Anz 32.00 -0.13c

$31.87

(2)

APA 7.32 +16c

$7.48

(2)

b) Joshua owns 4500 shares in AURIZON, 1000 shares in ASX and 2900 shares in APA GROUP. What is the total value of Joshua's share portfolio at close of trade December 24th 2014?

(4500 x 4.62) + (1000 x 36.64) + (2900 x 7.32)

w.o.

$78,658 // Ans (3)

10. [5 marks: 2, 3 marks]

Amanda is a student studying to be a Vet.

She works part time as a waitress for 18 hours a week plus ~~4 hours of~~ 6hrs overtime where she gets paid time and a half. Her rate of pay is $20/hr.

Amanda works 40 weeks of the year. x480hrs =$19,200

She lives with a friend and pays $150 per week in rent and this covers her utility bills.

She has a car and it costs $80 to fill up with petrol once a month. She puts $200 aside each year to cover the maintenance of her car for that year.

Her other fixed expenses are her mobile phone which costs $50/month.

Amanda is creating a budget.

a) What is the total of her annual fixed expenses?

I = 19200
- 12760
$6440

F = 150 x 52 = $7800 - Rent
80 x 52 $4160 -
$200
$600 phone

2
$12,760

b) How much money does she have left annually after all her fixed expenses?

11. [4 marks]

Consider the following table outlining the family tax benefit payable to families with 1 child, based on their level of income.

Families with 1 child meeting the criteria	
Combined annual income	**Family Tax Benefit for the year**
Up to $48000	$5100
$48001 to $63000	$5100 less 20 cents for each $1 annual income exceeds $48000
$63001 to $95000	$2100
$95001 to $102000	$2100 less 30 cents for each $1 that annual income exceeds $95000
Over $102000	Nil

Determine the annual Family Tax Benefit (FTB) paid to a family with one child meeting the FTB requirements and with a combined annual income of $96,000.

1. $96000 - 95000 = 1000 \times 0.3 = \$300$ ✓ ✓

2. $2100 - 300$ ✓

$= \$1800$ ✓

4

- End of Test -