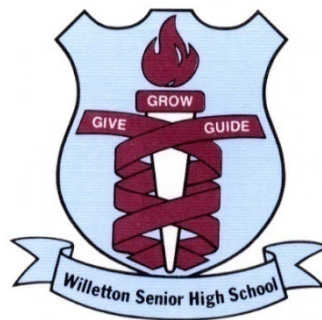


MATHEMATICS APPLICATIONS

YEAR 11 UNIT 1

TEST 1 CONSUMER ARITHMETIC

TERM 1, 2022



SECTION ONE – CALCULATOR FREE

TIME: 20 mins
MARKS: 21 marks

STUDENT'S NAME: _____

CIRCLE YOUR

TEACHER'S NAME: Miss Colquhoun Dr Duan Mr Galbraith
Mr Riemer Mr Stillitano

- No calculators are allowed during this section of the test.
- Show all necessary working in order to obtain full marks.
- A formula sheet will be provided.

Question 1**(2 marks)**

Calculate the following :

- (a) Increase \$305 by 20% (1 mark)
- b) If a company has 24 courier drivers out of a total staff of 30. What percentage of the staff are courier drivers ? (1 mark)

Question 2**(4 marks)**

- (a) Calculate the P/E (the price to earnings ratio) of the company 'Eastpac' that has a share price of \$24.00 and for which the total earnings per share over the previous 12 months has been \$3.00 (1 mark)
- (b) An investor is also looking at the company 'Macban' that has a P/E ratio of 6 and for which the total earnings per share over the previous 12 months has been \$1.50. Calculate its share price. (1 mark)
- (c) Based on the P/E ratios for Eastpac and Macban, which is the better share to buy ? Explain your reasons for your decision. (2 marks)

Question 3**(6 marks)**

A Mobile phone shop lists all its phone prices with the GST of 10% already included in the shop price. A new model phone is displayed with a price of \$880.

- (a) Determine the pre GST price of the mobile phone. (2 marks)
- (b) If the shop manager decides to discount the shop price of the new model by 20%, as it's not selling fast enough, determine the new discounted sale price. (2 marks)
- (c) A customer bought the new model phone at the discounted sale price and then later sold it to a friend for \$528, what was his percentage profit or loss? (2 marks)

Question 4**(4 marks)**

A sales person in a store earns a monthly retainer of \$1 800 as well as a 15% commission on the value of his sales.

* In January , his total sales were \$9 000

* In February, his total sales were \$14 000

- (a) How much commission did he earn in January ? (1 mark)
- (b) How much did he earn in total, for the two months of January and February ? (3 marks)

Question 5**(5 marks)**

An investor bought a house for \$800 000 and sold it one year later for \$840 000.

- (a) Determine the percentage profit that the investor made. (2 marks)

- (c) The real estate agent that sold the house charges a commission of 1.5% of the sale price of \$840 000. Determine the value of the agent's commission. (1 mark)

- (c) The person that bought the house from the investor is required to pay transfer duty (formerly known as Stamp Duty) on the purchase price of the house. If transfer duty is calculated as \$19 665 plus 5% of the amount the sale exceeds \$500 000 determine the transfer duty payable. (2 marks)