

## UNIT 3 *Using Fractions and Percentages*

## CSEC Revision Test

1. Calculate the EXACT value of

$$\frac{\frac{2}{3} + \frac{5}{12}}{1\frac{1}{4}}$$

giving the answer as a common fraction in its LOWEST terms. (2 marks)

2. Calculate the EXACT value of

$$4\frac{1}{5} - \left(1\frac{1}{9} \times 3\right) \quad (2 \text{ marks})$$

3. Calculate the EXACT value of

$$\frac{3\frac{1}{4} - 2\frac{1}{3}}{1\frac{5}{6}} \quad (3 \text{ marks})$$

4. Calculate

$$1\frac{1}{6} \div \left(1\frac{2}{3} + 1\frac{1}{4}\right) \quad (3 \text{ marks})$$

5. A car costs \$4000 and loses value at the rate of 10% each year.

What is the value of the car after

- (a) 1 year                      (b) 3 years ?

What is the percentage loss in value after 3 years? (6 marks)

6. A person invests J\$5000 in a building society account which pays 5% interest each year.

If the interest is added to the account at the end of each year, what will be the balance of the account after 3 years? (3 marks)

7. The price of a boat is \$1410, including GCT at  $16\frac{1}{2}\%$ .

Find the actual cost of the boat and the amount of GCT which has to be paid? (5 marks)

8. The fuel tank on a motor mower holds  $10\frac{1}{2}$  litres when it is  $\frac{3}{4}$  full.

What is the total capacity of the tank? (3 marks)

**(TOTAL: 27 MARKS)**

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## CSEC Revision Test Answers

1.  $\frac{13}{15}$  B2 (2 marks)
2.  $\frac{21}{5} - \left(\frac{10}{9} \times 3\right) = \frac{13}{15}$  M1 A1 (2 marks)
3.  $\frac{\left(\frac{13}{4} - \frac{7}{3}\right)}{\frac{11}{6}} = \frac{11}{12} \times \frac{6}{11} = \frac{1}{2}$  M1 A1 A1 (3 marks)
4.  $\frac{7}{6} \div \left(\frac{5}{3} + \frac{5}{4}\right) = \frac{7}{6} \div \frac{35}{12} = \frac{7}{6} \times \frac{12}{35} = \frac{2}{5}$  M1 A1 A1 (3 marks)
5. (a)  $4000 \times \frac{90}{100} = 3600$  M1 A1
- (b)  $3600 \times \left(\frac{90}{100}\right)^2 = 2916$  M1 A1
- $\frac{(4000 - 2916)}{4000} \times \frac{100}{1} = 27.10\%$  M1 A1 (6 marks)
6. After 3 years, value =  $5000 \times \left(\frac{105}{100}\right)^3 \approx \text{J\$}5788$  M1 A1 A1 (3 marks)
7. Cost =  $\frac{\$1410}{1.165} = \$1210.30$  M1 A1 A1
- GGT =  $\$1410 - \$1210.30 = \$199.70$  M1 A1 (5 marks)
8.  $10\frac{1}{2} \div \frac{3}{4} = \frac{21}{2} \times \frac{4}{3} = 14$  litres M1 A1 A1 (3 marks)

**(TOTAL MARKS 27)**