

SECTION I

Answer all questions in this section

All working must be clearly shown.

1. (a) Using a calculator or otherwise, calculate the exact value of

$$(2.67 \times 4.1) - 1.3^2 \quad (3 \text{ marks})$$

- (b) Mr. Harry who lives in St Kitts is planning to travel to Barbados. A travel club offers the rates shown below.

Petty's Travel Club Holiday in Barbados	
Return Air Fare	US\$356.00
Hotel Accommodation	US\$97.00 per night

- (i) Calculate the **TOTAL** cost of airfare and hotel accommodation for 3 nights using the rates offered by Petty's Travel Club. (3 marks)
- (ii) Another travel club advertises the following package deal.

Angie's Travel Club Holiday in Barbados	
3 Nights Hotel Accommodations plus Return Air Fare	
EC\$1610.00	

Calculate, in US dollars, the cost of the trip for 3 nights as advertised by Angie's travel club.

$$\text{US\$1.00} = \text{EC\$2.70} \quad (2 \text{ marks})$$

- (iii) State, giving a reason for your answer, which travel club (Petty's or Angie's) has the better offer. (2 marks)

- (iv) The EC\$1610.00 charged by Angie's Travel Club includes a sales tax of 15%. Calculate the cost of the trip for three nights BEFORE the sales tax was added. (2 marks)

Total 11 marks

2. (a) Solve for p

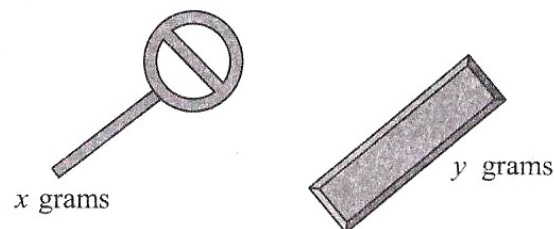
$$2(p + 5) - 7 = 4p \quad (2 \text{ marks})$$

- (b) Factorize completely

(i) $25m^2 - 1$ (2 marks)

(ii) $2n^2 - 3n - 20$ (2 marks)

- (c) A candy store packages lollipops and toffees in bags for sale.



5 lollipops and 12 toffees have a mass of 61 grams.
10 lollipops and 13 toffees have a mass of 89 grams.

- (i) If the mass of one lollipop is x grams and the mass of one toffee is y grams, write two equations in x and y to represent the above information. (2 marks)

- (ii) Calculate the mass of

a) ONE lollipop

b) ONE toffee

(4 marks)

Total 12 marks