Eton College King's Scholarship Examination 2021

GENERAL I

(One hour)

Remember to write your candidate number on every sheet of answer paper used.

You must answer both questions. Each question is worth the same number of marks.

You need not answer the questions in the order set, **but you must start each one on a** separate piece of paper.

If you have not finished a question after 30 minutes, **you are strongly advised to leave** *it and go on to the other*. Return to any unfinished question if you have time left at the end of the paper.

ADDITIONAL MATERIALS: NONE

Do not turn over until told to do so.

GENERAL I

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GENERAL I

Question 1: START A NEW SHEET OF PAPER NOW. If you have not finished this question after 30 minutes, you are strongly advised to leave it and go on to the other.



Deep in an ancient cave in the bowels of Wales some paintings have been discovered. They seem to show the animals caught by different members of a hunting party along with descriptions of each person's catch.

The famous linguist Professor Chim Nimsky has transliterated the captions into the Roman alphabet and tried to match each one to the correct drawing. He thinks one of the hunters is lying.

Help check the professor's work:

- —Identify which caption refers to which picture.
- —Identify which caption is a lie.
- -How should the erroneous caption read?

Marks will be awarded for any information discerned, if intelligibly presented.

The captions:

- I. juratateakarankwateda
- II. juratapebokwolope'akarankwapeda
- III. juratapebokwolopeda
- IV. juratapeakarankwapeda
- V. juratapebokwolote'akarankwateda
- VI. juratabokwoloda
- VII. juratapebokwolote'akarankwapeda

[Total mark for Question 1: 25]

GENERAL I

Question 2: START A NEW SHEET OF PAPER NOW.

If you have not finished this question after 30 minutes, you are strongly advised to leave it and go on to the other.

Coins come in denominations of 1p, 2p, 5p, 10p, 20p, 50p and £1. Item prices (in pence) are all whole numbers.

A shop sells apples for 11p each, bananas for 12p each, oranges for 14p each and pears for 17p each.

- (a) (i) Adam buys three items, which between them come to 43p. What does he buy?
 - (ii) Beth buys four items, for a total of 55p. What does she buy?

[5]

[4]

- (b) (i) What is the highest number of items I can buy for precisely $\pounds 1$?
 - (ii) What is the lowest number of items I can buy for precisely £1?
- (c) (i) Diana buys three items with a £1 coin; the shopkeeper is unable to give her change in fewer than 5 coins. What does she buy?
 - (ii) Edward buys three items as well. He notes that the smallest number of coins required to pay for them together is three, which is also the smallest number of coins he can receive in change from £1. What does he buy?

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(d) Fred now goes to a different shop. This shop only sells chews, lollies and gobstoppers (with chews being the cheapest and gobstoppers the most expensive).

The price of a gobstopper is the same as that of a chew and a lolly combined.

Fred finds that 50p can pay for two items precisely, but can also pay for three items precisely.

He considers all the combinations of three items he could buy, and finds that there are only three he can afford to choose with his 50p.

He could afford a fourth choice if he had an extra 5p.

Find the price of each item.

[10]

[Total mark for Question 2: 25]

END OF PAPER

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