

Eton College King's Scholarship Examination 2024

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.*

Do not turn over until told to do so.

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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.

- (a) The compressed nature of newspaper headlines can give rise to ambiguity. That ambiguity can in turn generate humour. Explain why the following real headlines are both ambiguous and amusing. Credit will be awarded for the clarity and concision of your explanation.

1. Foot Heads Arms Body
2. Queen Mary Has Bottom Scraped
3. British Left Waffles on Falkland Islands [8]

- (b) Consider the following ambiguous headlines. They can be split into groups according to their respective sources of ambiguity.

1. Enraged Cow Injures Farmer with Axe
2. Black Cab Drivers Banned from City Centre
3. Squad Helps Dog Bite Victim
4. Hospitals Sued by Seven Foot Doctors
5. Child's Stool Great for Use in Garden
6. Blind Bishop Appointed to See
7. Bar Trying to Help Alcoholic Lawyers
8. Belgian Ships Head to Libya

- (i) Without explaining each sentence, describe with concision how you might categorise these headlines into two equally-sized but distinct groups *based on their ambiguity* and indicate which headlines you would place in which group. [5]

- (ii) Suggest a different way you might categorise these headlines into two groups. [2]

- (c) The following sentence is grammatically correct. In each case give the simplest possible answer.

That alpaca that boy that strokes that llama thinks loves scratches bites.

- (i) Who/what bites whom/what? [2]
- (ii) Who/what scratches whom/what? [2]
- (iii) Who/what thinks what? [2]

- (d) Here is another grammatically correct sentence. Explain what it means and say whether you agree.

Boys boys boys bully bully bully. [4]

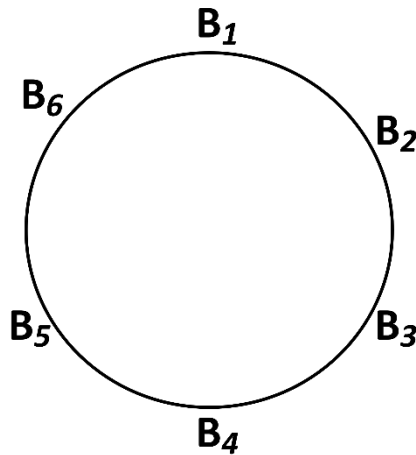
[Total mark for Question 1: 25]

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 back to the other.

Where there are multiple marks, most of the credit will be given for clear reasoning, rather than just the final answer.

There are six boys sitting together at lunch on a circular table. They have been labelled accordingly, with B representing Boy and a different number indicating a different boy as per below:



In the following questions, the boys involved make statements about each other. Each boy is either reliably honest and always tells the truth or is reliably dishonest and always lies.

- Suppose all six boys say, “The boy directly opposite me is telling the truth.” One possible scenario is that all boys are telling the truth. In total, how many different possible scenarios are there? Explain your answer. [2]
- Now suppose that all six boys say, “The boy to my left is lying.” In total, how many different possible scenarios are there? Explain your answer. [4]

Now n people P_1, P_2, \dots, P_n sit in order around a circular table with P_1 sitting to P_n 's left.

- Suppose that all n people make the statement “the person on my left is lying *and* the person on my right is telling the truth”. Explain why everyone is lying. [4]

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Another six boys took part in an archery competition: Alex, Billy, Christopher, Dave, Eric, and Fasina. The tournament had three compulsory rounds: rounds 1 to 3. In each round every player shot one arrow at a target. Hitting the bull's eye fetched the highest score of 5. The only other possible scores that a player could achieve were 4, 3, 2 and 1; 0 was not a possible score. Every bull's eye scored in the first three rounds gave a player one additional chance to shoot in the bonus rounds: rounds 4 to 6. The *possible* scores in rounds 4 to 6 were identical to those in the first three rounds.

A player's total score in the tournament was the sum of his scores in all rounds played by him. The table below presents partial information on points scored by the boys after completion of the tournament. In the table, NP means that the player did not participate in that round, while a dash means that the player participated in that round and the score information is missing.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Alex	—	4	—	5	NP	NP
Billy	—	—	—	1	2	NP
Christopher	—	4	—	NP	NP	NP
Dave	—	—	—	1	5	—
Eric	—	—	3	5	NP	NP
Fasina	—	—	—	5	5	NP

The following facts are also known:

Fact 1: Alex, Billy and Eric had the same total score.

Fact 2: The total scores for all players, except one, were multiples of three.

Fact 3: The highest total player score was one more than double of the lowest total player score.

Fact 4: The number of players hitting the bull's eye in round 2 was double of that in round 3.

Fact 5: Alex and Fasina had the same score in round 1 but different scores in round 3.

d) Giving clear reasoning, complete as much of the table as possible. You are welcome to copy out the grid as part of your response. [15]

[Total mark for Question 2: 25]

END OF PAPER