



H12-10min Stratified Sampling (Higher): 10-minute Pack

EDEXCEL 1ST0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Cranmoor Golf Club has 260 members: 156 are full members and 104 are social members. A stratified sample of 40 members is needed for a satisfaction survey.

(a) Write down the fraction of members who are full members. (1)

.....

(b) Work out the number of full members to include in the sample. (2)

.....

(c) Work out the number of social members to include in the sample. (2)

.....

(Total for Question 1 is 5 marks)

- 2** A researcher is planning a stratified sample of secondary school pupils.

Which of these variables would be LEAST suitable to use when deciding the strata?

- ☐ A) Year group (Year 7 to Year 11)
- ☐ B) Gender
- ☐ C) The pupil's favourite colour
- ☐ D) Whether the pupil has school dinners or a packed lunch

(Total for Question 2 is 1 mark)

3 For each statement about stratified sampling, write down whether it is True or False.

(i) If a population is divided into strata by age group, everyone within the same age group must be identical in every other way. **(1)**

(ii) The sampling fraction used for one stratum must be the same fraction used for every other stratum. **(1)**

(iii) Stratified sampling can be combined with random number generation to choose the actual sample members within each stratum. **(1)**

(iv) The size of a stratum's sample depends only on how many strata there are, not on the size of the stratum itself. **(1)**

(Total for Question 3 is 4 marks)

Mark scheme • H12-10min Stratified Sampling (Higher): 10-minute Pack

Question 1

- (a) **B1** 156/260 oe (3/5, 0.6) cao
- (a) **Answer: 156/260 (= 3/5)**
- (b) **M1** 156/260 x 40, oe
- (b) **A1** 24 cao
- (b) **Answer: 24**
- (c) **M1** 104/260 x 40, oe
- (c) **A1** 16 cao
- (c) **Answer: 16**

Question 2

- **B1** C cao
- **Answer: C) The pupil's favourite colour**

Question 3

- (i) **B1** False cao
- (i) **Answer: False**
- (ii) **B1** True cao
- (ii) **Answer: True**
- (iii) **B1** True cao
- (iii) **Answer: True**
- (iv) **B1** False cao
- (iv) **Answer: False**