OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Advanced GCE

GEOGRAPHY A   **2686**

Investigative Skills

Tuesday   **14 JUNE 2005**   Afternoon   1 hour 30 minutes

An insert is enclosed with this question paper.
Additional materials:
     Answer paper

TIME   1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and Candidate number in the space provided on the answer paper/ answer booklet.
- Answer **one** question from Section A and **one** question from Section B.
- Write your answers in blue or black ink.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- You should use your 1000 word Report in answering questions in Section A and then attach it to your answer paper.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is 60.
- You will be awarded marks for the quality of written communication where an answer requires a piece of extended writing.
- Even where not specifically asked for, credit will be given for sketch maps, diagrams and examples of places you have studied, provided they illustrate your answer.

This question paper consists of 3 printed pages, 1 blank page and an Insert.

Section A

Answer **one** question only from this section.
You must base your answer on your 1000 word Report.

A1 (a) Based on the findings of your 1000 word Report, justify a further hypothesis or question you could usefully investigate. [15]

(b) Critically assess the reliability of the findings of your investigation. [15]

A2 (a) Describe how **either** geographical theories **or** your prior understanding of geographical processes led to the formulation of one hypothesis or question in your investigation. [15]

(b) To what extent were the outcomes of your investigation consistent with **either** the relevant geographical theories **or** geographical processes? [15]

A3 (a) To what extent was your data collection strategy a compromise between a desire for accuracy and a need for practicality? [15]

(b) Show how your choice of analytical methods was influenced by the characteristics of the data in your investigation. [15]

Section B

Answer **one** question only from this section.

B1 (a) Outline the following sampling strategies: **(i)** systematic **(ii)** stratified. [4]

(b) Study Fig. 1 (Insert), a 1:2 500 OS map extract showing part of a residential suburb with a varied stock of around 600 houses, in a small town in northern England. Figs. 2a and 2b show some house types in this suburb, and Fig. 3 is an extract of the electoral register for the area.

You have been asked to conduct an investigation into the commuting behaviour (e.g. place of work, length of journeys-to-work, transport used etc.) of people living in the suburb of which Fig. 1 represents only a small part.

Using only the information in Figs. 1 to 3 (Insert), describe how you would investigate patterns of commuting behaviour in this suburb using **(i)** a systematic sampling strategy and **(ii)** a stratified sampling strategy. [13]

(c) In the context of this investigation assess the relative merits of the two sampling strategies you described. [13]

B2 Study Figs. 4 and 5 (Insert) which show the results of a questionnaire survey on the place of origin of shoppers in the market town of Richmond in North Yorkshire. Fig. 4 shows the number of shoppers interviewed and the total population in 5 kilometre zones around Richmond. In Fig. 5 the values on the y axis are the ratio of shoppers to the total population in each 5 kilometre distance zone.

(a) Describe the relationship between shoppers and distance in Fig. 5. [4]

(b) Explain how a correlation technique could assist in the statistical analysis of data in Fig. 5 and suggest why the results of this statistical analysis should be treated with caution. [13]

(c) Discuss critically the advantages of taking the analysis of shopping and distance in Richmond a stage further by fitting a regression line (best-fit trend line) to the data in Fig. 5. [13]

B3 Study Figs. 6 and 7 (Insert) which show the Burnsall and Arthington sites chosen for sampling limestone bedload sediments on the River Wharfe, and the sample distributions of limestone bedload sediments for the two sites in Fig. 8. The data in Fig. 8 were collected on point bars (triangular-shaped areas of gravel deposits opposite the undercut bank on river bends), using a combination of transect and quadrat sampling methods.

(a) With the help of a sketch graph, name and justify **one** method of representing the data in Fig. 8. [4]

(b) Describe the technique of quadrat sampling and comment on its advantages and disadvantages. [13]

(c) State **one** hypothesis that could be tested from the data in Fig. 8.

Justify the use of statistical analysis to test your hypothesis, and assess the suitability of the Chi-squared test for the analysis of the data in Fig. 8. [13]

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