



National
Qualifications
2017

X733/77/11

Geography

FRIDAY, 26 MAY

9:00 AM – 11:30 AM

Total marks — 50

Attempt ALL questions

Credit will be given for appropriately labelled sketch maps and diagrams.

You must use the Supplementary Items and tracing overlays provided for annotation or as a base for diagrams. These resources should be placed inside the front cover of your answer booklet.

You should use the atlas provided.

Write your answers clearly in the answer booklet provided. In the answer booklet you must clearly identify the question number you are attempting.

Use blue or black ink. You may use pencil for the completion of Supplementary Item B — Tracing Overlay.

Before leaving the examination room you must give your answer booklet to the Invigilator; if you do not, you may lose all the marks for this paper.



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Total marks — 50

Attempt ALL questions

Question 1 — Map Interpretation

To answer this question you will need to use:

- Supplementary Item A — Ordnance Survey (OS) Map, Extract No 2252/EXP 255 1:25000 (Explorer Series), Llangollen and Berwyn
- Supplementary Item B — Tracing Overlay
- The atlas provided.

You should make detailed use of the whole map extract as well as using your atlas appropriately. You should also carefully read the information in the text boxes.

A proposal has been made to build an Adventure Park which will attract visitors of all ages to this rural area of Wales. The Adventure Park will consist of a Tree Top Adventure area; footpaths; a nature trail; an assault course; a café with shop facilities and car parking. The size of the proposed site will be approximately 500 × 500 metres.

- (a) (i) On Supplementary Item B, draw accurately to scale a suitable site that would be appropriate for the Adventure Park. The site does not need to have straight edges. 3
- (ii) Using map evidence, explain the reasons for your choice of site. You may wish to annotate your tracing overlay to support your answer. 4

“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Sustainable Development Commission

- (b) Explain how the design and layout of the Adventure Park could be developed sustainably. 5

Question 1 (continued)

Llangollen, with a population of 3658 (2011 Census), is a small market town in Denbighshire, north-east Wales, with an extensive rural sphere of influence. The economy of the town relies heavily on the tourism of the surrounding area but also on farming. This part of Wales lies within an extended Area of Outstanding Natural Beauty and a World Heritage Site buffer zone.

- (c) Discuss **negative** impacts that the Adventure Park may have on local people.

4

North Wales attracts more visitors than any other region of Wales. Almost 3 million visits were made to North Wales in 2009. 87% of visits were staying visits. Staying visitors generated a total expenditure of £517 million.

- (d) Explain why this part of rural Wales is a suitable area for tourism. You may wish to refer to the whole map extract and your atlas in your answer.

4

[Turn over

Question 2 — Gathering and Processing Techniques

To answer this question you will need to use:

- Supplementary Item A — Ordnance Survey (OS) Map, Extract No 2252/EXP 255 1:25000 (Explorer Series), Llangollen and Berwyn

Students at Llangollen High School wish to carry out a perception study using a questionnaire to gather and evaluate local opinion about the likely economic and environmental effects of the proposed Adventure park on this rural area of Wales.

- (a) (i) Discuss the advantages and disadvantages of using a questionnaire to gather and evaluate information. 4
- (ii) Outline what should be taken into account when preparing the questionnaire. 2
- (b) Explain **two** methods that the students could use to process and analyse the questionnaire results in order to evaluate local opinion. 4

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Question 3 — Geographical Data Handling

MARKS

To answer this question you will need to use:

- Tables 1 and 2
- Supplementary Item C (Figures 1, 2 and 3)
- The atlas provided.

Table 1: River flow data for the River Niger

| Month | 1967/68 River discharge in cumecs (cm ³) | 2013/14 River discharge in cumecs (cm ³) |
|-----------|--|--|
| May | 240 | 70 |
| June | 50 | 468 |
| July | 60 | 480 |
| August | 1440 | 956 |
| September | 1340 | 1195 |
| October | 1450 | 1414 |
| November | 1671 | 1434 |
| December | 1842 | 1395 |
| January | 1912 | 1400 |
| February | 2151 | 712 |
| March | 2005 | 472 |
| April | 717 | 62 |

Table 2: Mean and Standard Deviation

| Year | 1967/68 | 2013/14 |
|--------------------|---------|---------|
| Mean | 1239.75 | 838.17 |
| Standard deviation | 773.98 | 527.55 |

- (a) Study Tables 1 and 2.

A student is investigating changes in the River Niger's discharge between 1967 and 2013. They have applied standard deviation to both data sets.

- (i) Explain the suitability of using standard deviation to investigate changes in the river's discharge. 4

- (ii) Referring to the information in Table 1 and Table 2, analyse the data relating to discharge of the River Niger between 1967/68 and 2013/14. 6

Question 3 — Geographical Data Handling (continued)

"The region's countries share their surface water resources, which are concentrated in a few watershed areas, the main ones being found in Niger, Lake Chad, Senegal, the Gambia and the Volta. Following decrease in rainfall since the 1970s, the main rivers have witnessed a drop in their stream flows. The reduction was relatively greater than the drop in rainfall levels."

- (b) (i) The data shown in Figure 3 of Supplementary Item C is presented in a Table. Describe an alternative technique that would allow this data to be presented accurately on the map. 4
- (ii) Analyse the factors which could have led to a reduction in the discharge of the River Niger. 6

[END OF QUESTION PAPER]

ACKNOWLEDGEMENTS

Question 1(b) – Quote is taken from Sustainable Development Commission.

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