Section B: Fieldwork

Qu	Pt	Marking guidance	Total marks
04	1	**Complete the map below (Figure 5) to show the origin of visitors to Bournemouth using the following data.** 1 mark for correct shading in appropriate region (Yorkshire and the Humber). Must be shown as horizontal lines AO4 = 1 mark	1
04	2	**Describe the pattern shown by Figure 5.** Two basic points OR one developed point (can be an identified point and use of data) Needs reference to the actual map data to provide accurate indicative content • Most come from the southern area (1), particularly the South east, East Midlands and West Midlands (d)(1) • Fewer come from the northern area (1), particularly Scotland, Wales and Northern Ireland (d)(1) • Fewest from Wales / Scotland / Northern Ireland (1) • The greater the distance from Bournemouth the smaller the number of visitors (1) • Higher towards the east of the map (1) Max 1 mark for lifting data about areas (at least 2) from the key eg 14 % and more came from the South East, and 5% or less came from Scotland (1) Allow reference to Figure 4 data. AO4 = 2 marks	2
04	3(a)	**Suggest one additional question which could be included on the visitor survey.** Credit any valid additional idea that would give a more accurate picture of visitors to Bournemouth Questions might relate to: • Form of transport used to visit Bournemouth • When the visit took place • Time taken to reach Bournemouth • Reason for visit • Length of stay • Type of accommodation	1

		• Attractions visited. • Whether you would return No credit for "where have you come from?" AO4 = 1 mark	

04	3(b)	**Give one reason why your chosen question might provide useful information for the visitor survey.** Credit any valid reason which is clearly linked to part (a). Ideas might include; • Reliance on public transport • Seasonality • Popularity of different types of accommodation • Relative popularity of different types of facility AO4 = 1 mark	1

04	4(a)	**Suggest a more appropriate method for presenting the data shown in Figure 6.** Eg. Bar graph/chart Pie chart AO4 =1 mark	1

04	4(b)	**Give a reason for your choice.** Link to chosen method • Consists of discrete data/discontinuous data • Gives an accurate number for each month • Easier to identify differences across the year/see each separate set of data AO4 = 1 mark	1

04	5	**What is the total environmental quality score for the area shown in Figure 8?** 1 mark for correct answer. • plus 2 (+2) /Just "2" is acceptable AO4 = 1 mark	1

04	6	**Suggest one advantage and one disadvantage of using the technique shown in Figure 8 to measure environmental quality.** Accept any reasonable points, which might include: **Advantage** (1 mark) • Easy to read/understand • Quick to complete so a lot of data can be gathered • Does not require any complicated equipment • Could be given out and collected later • Quite easy to calculate and make comparisons • Do not need any particular skills to carry out the data collection • The features that make up the survey could be changed to suit the area and aim(s) of the enquiry. • Shows strength of opinion • Considers a range of factors • Turns subjective ideas into numerical data **Disadvantage** (1 mark) • Not totally clear what the categories mean • Very subjective and based on opinions rather than facts • Some people may not understand the language and simply say anything • Levels of accuracy – if people are unsure they will tend to give a middle answer • Comparability (especially if completed by different people) • The range of possibilities is narrow so major differences may not show up • Requires mathematical skills to calculate/opportunity for mathematical error • Lacks specificity in relation to the values • Can end up with a narrow range of outcomes 1 mark maximum for directly reversed point eg easy to calculate overall value/ hard to calculate value AO3 = 2 marks	2

04	7	**Complete the scattergraph for River B by plotting the following data.** One mark for accurately plotting the data Must be plotted where graph lines cross AO4 = 1 mark	1

04	8	**Draw a line of best fit on the scattergraph for River B.** Should have bottom left to upper right inclination and be roughly in the centre of the scatter/approximately the same number of points on either side. Line should have a lower gradient than line on River A. Must start at or near bottom left hand point of graph and end at a point between 60cm and 80cm on the vertical. Do not credit line that does not cover range of points (shortened line). Straight line only AO4 = 1 mark	1

04	9	**Compare the relationship between distance from source and depth of river for the two rivers.**	4

Level	Marks	Description
2 (Clear)	3–4	AO3 – Demonstrates clear application of knowledge and understanding of scattergraphs in interpreting the correlation between river depth and distance from the source. AO4 – Clear reference made to the data shown on the scattergraph.
1 (Basic)	1–2	AO3 – Demonstrates limited application of knowledge and understanding of scattergraphs in interpreting the correlation between river depth and distance from the source. AO4 – Some reference made to the data shown on the scattergraph.
	0	No relevant content.

- Level 2 (clear) identification of the relationship between river depth and distance from the source, making some reference to the relative strength of the relationship. May consider anomalies. Direct use of data to make clear comparative observations.
- Level 1 (basic) identification of the relationship(s) expressed by the scattergraph(s). Some implied use of data.

Indicative content

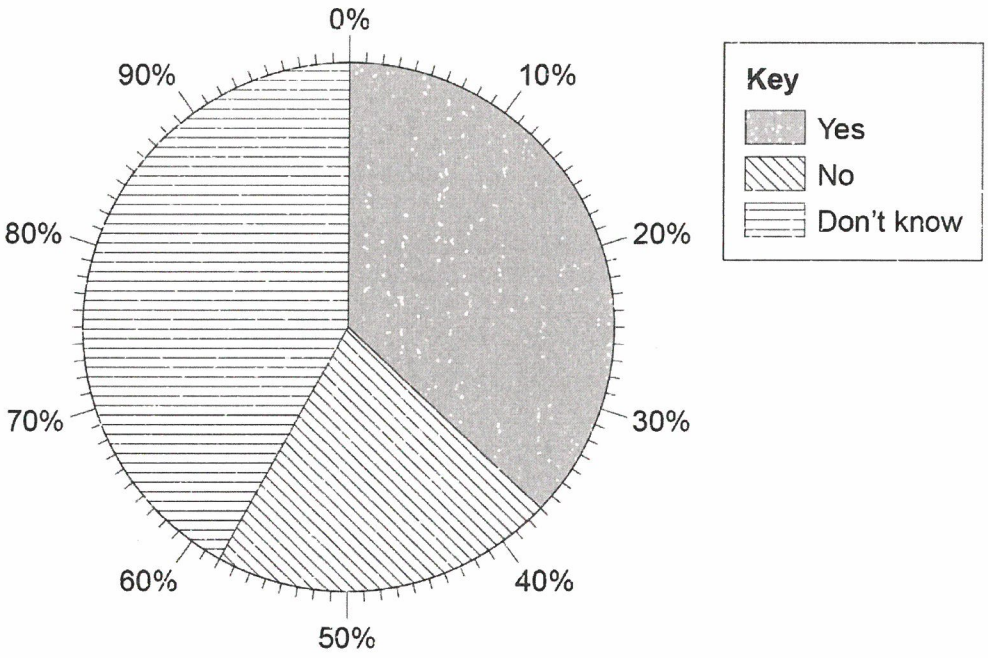
The command word is 'compare' therefore students will need to make reference to both graphs. The levels will reflect the extent to which students are capable of identifying a pattern that indicates a positive correlation whilst appreciating there is a difference in the strength of the relationship between the two graphs.

- Answers must apply understanding to the pattern displayed in the scattergraphs. Answer may refer to:
  - number of points
  - pattern of dispersion
  - degree of clustering around the best fit line
  - anomalies.

- Credit use of data to express relative differences

AO3 = 2 marks, AO4 = 2 marks

Section B: Fieldwork

Qu	Pt	Marking guidance	Total marks
04	1	**Complete the pie chart below to show the results of <u>Question 2</u> in the questionnaire (Figure 4).** Two sectors completed accurately and shaded in correct order for 1 mark. No – 21% Don't know – 42%  AO4 – 1 mark	1
04	2	**Using Figure 4, describe the pattern shown by the results of the car park survey.** Answers can use the data OR map OR both. The expectation is that candidates will use the map and the data to offer some appreciation of the pattern. Consequently there is no credit for simply repeating the data, even if it is relative (Car Park B has a higher use than Car Park A). 1 mark for some appreciation of distance-decay (nearer the town centre-higher use) **OR** references between weekday/Saturday. A second mark for some development, which might include use of the data or relative distance. All three car parks do not have to be considered in order to express a relationship.	2

		• As you move away from the main shopping area the car parks are less busy(1), car park B nearest to the shopping area is busiest on both Wednesday and Saturday (d)(1). • Car parks are busier on a Saturday (1), by between 23% and 31% (d)(1). AO4 – 2 marks	

04	3	**To what extent can the student draw reliable conclusions from the data?** **Level / Marks / Description** 2 (Clear) / 3–4 / AO3 – Demonstrates clear analysis of the data (**Figure 4**) in relation to the reliability of conclusions. AO4 – Clear reference to the data in **Figure 4**. 1 (Basic) / 1–2 / AO3 – Demonstrates limited analysis of the data (**Figure 4**) in relation to the reliability of conclusions. AO4 – Some reference to the data in **Figure 4**. / 0 / No relevant content. The answer must be linked to the original aim of the enquiry, 'Does the town centre have a parking problem?' **Level 2 (clear)** – An appreciation that the data might give an understanding that there are different pressures on different days and that there is more pressure to park closer to the main shopping area. However, there are limitations with the data (which should be expressed) and consequently the reliability of the conclusions must come into question. **Level 1 (basic)** – Considers that the conclusions are reliable/unreliable by making superficial observations with limited use of data to support answer. Implied use of data related to reliability of conclusions. <u>Indicative content</u> • It is busiest in the town centre so must have a parking problem. • More people said yes than no so it must have a parking problem. • None of the car parks are full so there is not a parking problem. • There is evidence to suggest that there is more pressure near the main shopping area. • There is evidence to suggest that there are variations across the week. • None of the car parks are exceptionally busy on the Wednesday. • Saturday is busier but Car park B is the only one which appears to be under any real pressure. • The Car Park survey was limited, both in relation to days and times surveyed. • There is no reference to the actual number of spaces in each car park. • The questionnaire suggests that over half of all visitors arrive by car, suggesting a clear demand for parking spaces. • The link between the two questions on the questionnaire is somewhat tenuous since a significant number of visitors visited by bus or walked and consequently their view in relation to question 2 might not be that helpful.	4

		• It may have been better to have adopted a stratified sample with largely drivers. • The supermarket, which may have its own car park, may distort the data. AO3 – 2 marks AO4 – 2 marks	

04	4	**Complete the diagram below by filling in the median pebble size for place C.** The correct answer is 9.5 (accept nine and a half). AO4 – 1 mark	1

04	5	**Outline the conclusions that the students could draw from the data.** The answer must be linked to the original aim of the enquiry, "The size of pebbles in a river are smaller as the river flows downstream." **There is no credit for explanation.** 1 mark for some understanding that the data suggests that the hypothesis is correct (can be implied through the use of data): • The data shows that the pebbles get smaller downstream.(1) 2nd mark for use of data; consideration of rate of change; use of range or other measures (mean): • It is evident that the pebbles get smaller further downstream(1), this is shown by both the largest pebble size and the median figure which goes from 16.5 to 9.5.(d)(1) • It is evident that the pebbles get smaller further downstream(1) but the median figure suggests that the change is not consistent.(d)(1) • The river length between A and B is greater than between B and C.(1) The decrease in size is much greater between A and B than between B and C (d)(1). AO3 – 2 marks	2

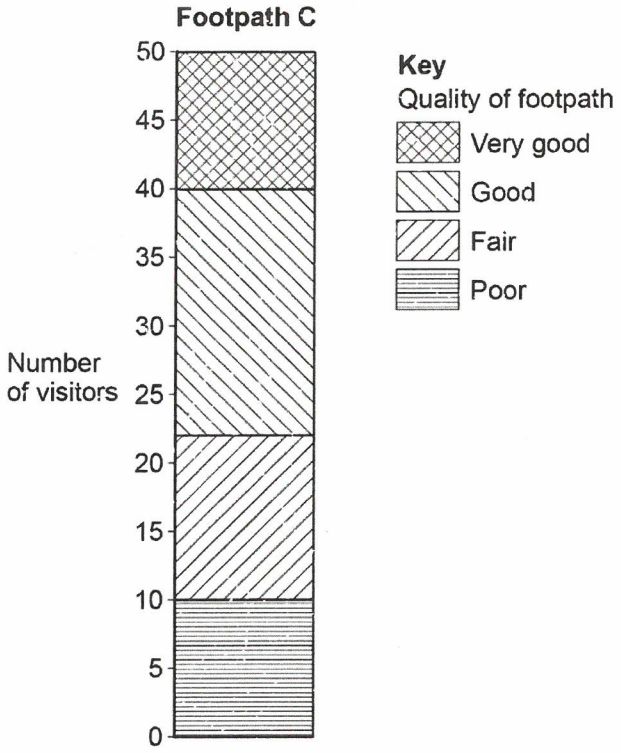
04	6	**Suggest two ways that the data collection method could be adapted in order to make it more useful.** 1 mark for each identified point. Possible ideas might include: • Larger sample size (1) • More sampling points (1) • Sampling from different points across the river (1) • Measure both axes of the pebble/whole size of the pebble (1) • Making sure that sampling is random (1) • Measuring different parts of the same river (**not a different river**) AO4 – 2 marks	2

04	7	**Complete the graph below to show life expectancy in the study area.** Line completed accurately, clearly joining the existing line and touching the **70** marker on the right hand axis. AO4 – 1 mark	1

04	8	**In 2001, how many years lower was life expectancy in the study area than the city average?** 9 AO4 – 1 mark	1

04	9	**Suggest two types of primary data that the student could use in their urban deprivation enquiry.** 2 x 1 marks Examples must be appropriate in relation to the aim of the enquiry which was to investigate deprivation. This can include social, economic and environmental data. Possible ideas might include: • Questionnaire/Interview • Environmental quality survey(**not just "survey"**) • Housing type/quality/price. • Photographs AO4 – 2 marks	2

Section B: Fieldwork

Qu	Pt	Marking guidance	Total marks
04	1	**Complete the graph below (Figure 5) to show the quality of footpath data for Footpath C.** Both bars marked on in correct order and shaded as the key (1 mark)  AO4 – 1 mark	1
04	2	**What percentage of visitors thought the quality of Footpath C was very good?** 20% AO4 – 1 mark	1
04	3	**Outline the conclusions that the students could make from the data (Figure 4).** 2x1 single points: • Footpath A appears to have the highest quality.(1) • Footpath B appears to have the lowest quality. (1) • Footpaths B and C had the same level of 'very good' rating. (1) 2 marks for a developed point: • Footpath A has the highest rating (1) suggested by the fact that 38 people said they were good or very good. (d)(1) • All three footpaths had a range of ratings (1), however footpath B had the highest number rated poor. (d)(1)	2

		No marks for simply repeating a single data set (21 people said Footpath A was very good). There needs to be a link to the idea expressed in the question 'does the quality of footpath vary?'. AO3 – 2 marks	

04	4	**Suggest another appropriate method the students could use to present the footpath quality data.** Any appropriate suggestion. Most likely answers may be pie graph/chart; bar graph/chart, located bar graph – 1 mark. Line graph is incorrect. AO4 – 1 mark	1

04	5	**Suggest two ways the questionnaire shown in Figure 6 could be improved to make it more useful.** 2x1 Credit any valid suggestion • Differentiate between males/females. • Indicate different age groups using tick boxes. • Provide a list of areas/district from which shoppers are likely to have travelled. • Ask how far they have travelled. • Provide a list of options from which shoppers can choose when they last visited. • Ask how many times they have visited. • Ask which shops/services they have used/reasons for visit. • Provide a list of types of transport. • Ask how long the journey has taken. • Ask how long are you staying. • Provide options in terms of length of stay. • Improve the design of the questionnaire so the responses from a number of shoppers could be recorded on one sheet. AO4 – 2 marks	2

04	6	**Compiete Figure 7 by adding the following information.** Both sets of appropriate symbols required for 1 mark (2 buses 4 cars) Accept any reasonable representation. AO4 – 1 mark	1

04	7	**Complete the desire line map (Figure 8) by adding the following information about a shopper.** Both direction and distance required for 1 mark. Tolerance • Accept anywhere between existing desire lines pointing in SE direction. • 14–16km distance. AO4 – 1 mark	1

04	8	**Suggest reasons for the pattern shown on Figure 8.** 2x1 **changes** mark or 2 marks for a developed point. Accept any reasonable comment that relates to a description of the pattern. • The river is a major barrier and reduces movement from the north. • People travel shorter distances from the east because there are other shopping areas nearby. • Fewer people come from longer distances because of the need for a car/cost. • More remote areas may have fewer shopping opportunities. • The bus service may make it more difficult/easier to reach the shopping centre. • There appears to be a general pattern of "distance-decay". AO4 – 2 marks	2

04	9	**Complete the table below (Figure 10) for town centre A.** AO4 – 1 mark	1

Town centre	A	B	C
Number of charity shops	**9**	19	18
Total number of shops	**92**	114	142

04	10	**Using Figure 10, compare the proportion of charity shops between the three town centres.**	4

Level	Marks	Description
2 (Clear)	3–4	AO3 – Demonstrates clear application of knowledge and understanding of proportion by analysing the data associated with the three identified towns. AO4 – Clear reference made to the data shown in **Figure 10**.
1 (Basic)	1–2	AO3 – Demonstrates limited application of knowledge and understanding of proportion by simple analysis which largely refers to amounts rather than proportions. AO4 – Some reference made to the data shown in **Figure 10**.
	0	No relevant content.

- **Level 2 (clear)** – shows an understanding of the relative proportion of all three places by using % data or ratio with an appropriate degree of accuracy. Candidates need to make an explicit comparison between the three data sets to gain full marks.

  4 marks – Understanding of proportion and accurate data with all three places used to offer clear analysis.

  3 marks – Understanding of proportion and some data used to offer clear analysis

- **Level 1 (basic)** – Limited understanding of proportion, with data used in a basic way. No real attempt to analyse the data in terms of relative proportions.

  2 marks – Attempts to consider proportion but calculations not always accurate. Simple statements with no relative judgements (B has the most charity shops / C has the highest proportion) or incomplete.

  1 mark – Simple use of raw data with no real understanding of proportion:
  - Repeats data (A has 9 charity shops, B has 19 charity shops, etc.)
  - B has more charity shops than C.
  - **Max Level 1** for correct calculation of proportion / percentage with no further analysis.

  Approximate statistical data:

	A	B	C
Percentage	9.7	16.6	12.6
Ratio	1 in 10 (just over)	1 in 6	1 in 8 (just under)

AO3 – 2 marks
AO4 – 2 marks