Section B: Fieldwork – MARK SCHEME

Question 1a

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

Question 1b

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.

Question 1c

(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
- Attractions visited.
- Whether you would return

No credit for "where have you come from?"

(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

Question 1d

(a) **Suggest a more appropriate method for presenting the data shown in Figure 6.**
Eg. Bar graph/chart
Pie chart

(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

Question 2a

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

Question 2b

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

Question 2c

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

Question 2d

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

Question 2e

Compare the relationship between distance from source and depth of river for the two rivers.

- **Level 2 (3-4 Marks) (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.

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

Question 3a

Explain why the chosen location was suitable for the collection of data.

Answer must relate to the title of the physical geography enquiry.
Identifies 2 points (2x1) with limited explanation OR offers a developed point with clear reasoning.

Answers will be dependent upon the type of investigation being undertaken, but could include some of the following:

- accessibility – within walking distance (1), level ground (1), public access (1), no risks(1)
- safety considerations – away from unstable cliffs (1), water level not too deep (1), water flow not fast (1)
- range of survey points available (1)

Second mark for developed point (clear explanation of single point), eg

- Range of survey points available (1) with enough variation within locality to show changes over distance (d)(1)

Max 1 mark if reference to human geography investigation.
Note that there is no credit for the title in itself. Accept a range of titles if appropriate to physical geography.

Question 3b

Justify one primary data collection method used in your physical geography enquiry.

Answer must relate to physical geography enquiry.

1 mark – Identifies data collection method, eg:
"a pebble survey was carried out on the beach"
2 marks – Identifies data collection method and offers an appropriate reason,
eg:
"a pebble count was carried out on the beach (1) to show the location of different sized pebbles" (d)(1)
3 marks – Identifies data collection method and offers a developed reason OR two separate reasons, eg:
"a pebble count was carried out on the beach (1) to show the location of different sized pebbles (d)(1) to show the effects of the waves" (d)(1)

Credit use of specific fieldwork equipment as part of primary data methodology

1 mark- eg a flow meter was used in the study of the river
2 marks- eg, a flow meter was used in the study of the river (1) to measure the velocity at different points (d) (1)
3 marks eg a flow meter was used in the study of the river (1) to measure the velocity at different points (d) (1) to show how the flow of water varies from source to mouth (d) (1)
Max 1 mark if reference to human geography investigation.

Question 3c

Explain how one data presentation technique used in your human geography enquiry helped you to interpret the data.

Only reference to **one** human geography data presentation technique required.

- Level 3 (5-6 Marks) (detailed). Developed explanation of how the identified technique aided interpretation (eg made it easier to identify patterns/examine relationships/identify anomalies).

<u>Indicative content</u>

- Any technique of data presentation is acceptable but the technique selected must relate to a human geography fieldwork investigation. The most likely techniques to be used are graphical and cartographical techniques. Numerical and statistical techniques would also be acceptable.
- Description of the techniques may be present but is not required. The focus should be on an explanation of the ways interpretation of the data collected was aided.
- Features within the presentation technique will be discussed in terms of the effectiveness in helping to interpret data.
- Sectors of graphs such as pie charts, proportionality applied to data so that it could be presented on a map to show variation and distribution.
- Sectors of bar graphs to help accurately show proportion.
- Data plots on scattergraphs to help clearly indicate trends in relationships between variables.
- Clusters of colours on maps to help indicate function of urban zones.
- Use of median, mean and mode to help provide an average or a measure of central tendency.
- Calculation of inter quartile range to help indicate the degree of clustering or spread of values around the median.

Max Level 1 for reference to physical geography data presentation techniques.

Note that there is no credit for the title in itself. Accept a range of titles if appropriate to human geography.

Question 3d

For one of your fieldwork enquiries, assess the extent to which the accuracy of the results and the reliability of the conclusions could be improved.

- Level 3(7-9 Marks) (detailed) reference to both accuracy of results and reliability of conclusions which provides an effective evaluation as to how the investigation could be improved. Coverage of both results and conclusions. Evidence of results being linked to conclusions.

Indicative content

The command is focused on "assess the extent" so there is an expectation of a relative judgement which is supported by evidence.

- Results and conclusion will vary according to the investigation undertaken.
- Results may be evaluated in relation to accuracy, sample sizes, sampling strategies and variables such as weather conditions that might have affected the fieldwork activities through which the results were collected. Any of these factors could compromise the accuracy and reliability of the results.
- The contribution of the results in relation to the overall conclusion should be evaluated ie the extent to which the results provided suitable evidence to draw reasoned conclusions.
- A judgement about how the investigation could be improved should be made.

Maximum Level 2 for consideration of one of results or conclusions.

Spelling, punctuation and grammar (SPaG)

High performance

- Learners spell and punctuate with consistent accuracy
- Learners use rules of grammar with effective control of meaning overall
- Learners use a wide range of specialist terms as appropriate

Threshold performance

- Learners spell and punctuate with reasonable accuracy
- Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall
- Learners use a limited range of specialist terms as appropriate

No marks awarded

- The learner writes nothing
- The learner's response does not relate to the question

The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.

Question 4a

Complete table (Figure 4) by filling in the data for Area B and Area D.

2 x 1 mark

| Area	Original area of countryside (hectares)	Area lost to housing developments (hectares)	Remaining countryside (hectares)	% loss of countryside
A	240	24	216	10
B	320	160	160	**50**
C	260	39	221	15
D	420	84	**336**	20

Question 4b

Complete the pie chart below to show the information for Figure 5.

Two sectors completed accurately and shaded in correct order for 1 mark.

Nearest to beach – 8%

Other reasons – 6%
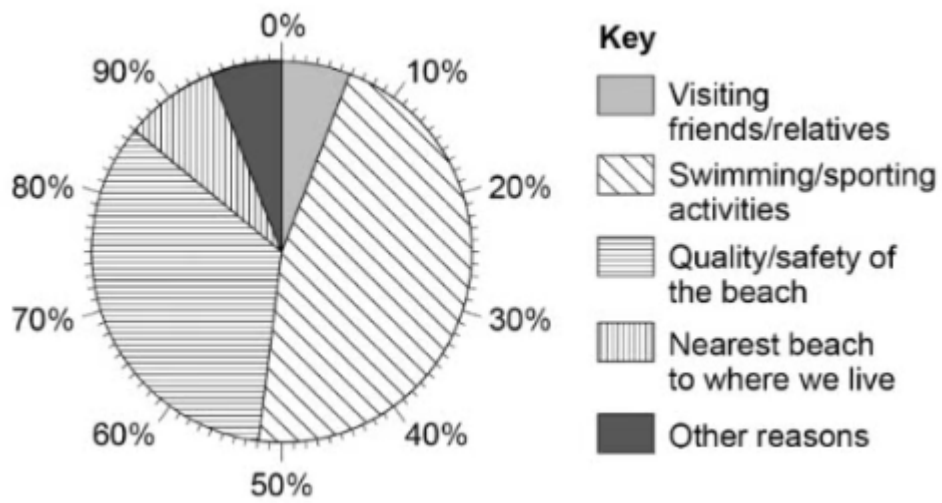
Question 4c

Name the type of sampling method used in Figure 6.

D: Systematic sampling where points are chosen at regular intervals.

1 mark for correct answer.

Question 4d

Suggest why the type of sampling shown in Figure 6 is not always possible in a fieldwork enquiry.

Accept suggestions related to any type of enquiry

1 mark for each identified point OR 2 marks for a developed/linked idea.
Possible ideas might include:

- difficult to get to (1)
- the land might be privately owned (1)
- relief/shape of landscape might make it difficult (1)
- animals in fields (1)
- it might be dangerous (1)
- may not be appropriate when doing questionnaires in an urban area (1)
- may not be possible if equipment to measure distance is lacking (1)

    Developed points:
- it might be difficult to get to (1) because of dense vegetation (1)
- the land might be privately owned (1) and part of someone's garden (1)
- there might be farm animals in the field(1) so it would be dangerous to cross (1)
- the land might be marshy (1) so it could be too risky (1)
- there might be a lot of traffic(1) which could make it dangerous(1).

Question 4e

Complete the cross-section from X–Y on Figure 7b.

Line must be complete
End point (Point Y) must be between 60-70 (not touching 60 or 70).

Question 4f

Describe the slope of the land from point X to the river.

• It goes downhill/decreases(1).
• Moderate/ gradual/ gentle gradient(1).
• Even/ constant/ steady (1).
• Slightly uneven(1).
• It drops from 60 – under 10 metres in 1700 metres(1).

Question 4g

Suggest two ways that students might adapt their method in order to obtain more appropriate data.

2x1 mark – Any appropriate ideas which relate to the information given.

Do not accept points about just "doing more surveys"

Ideas might include:
• larger number in the 51-60 age group
• ask more males
• surveys in different places
• surveys at different times/days
• surveys of other ages/age groups.

Question 4h

Suggest two additional data collection techniques that the students could use to find out if local facilities are good enough for the older population.

Do not accept named methods with no reference/relevance to the aim of the enquiry ("do a survey/people count/traffic count")

2x1 mark – Any appropriate ideas which are clearly relevant to the enquiry.

Ideas might include:
• inventory of existing facilities
• location of existing facilities
• interviews with older people (could be with a number of different people)
• survey of use of existing facilities
• photographs of facilities
• secondary data eg age related census data, land use maps showing facilities
• online reviews of facilities

Question 4i

Assess the usefulness of measures of central tendency, such as median, mean and mode, in analysing the housing quality data collected by the students.

- **Level 2 (3-4 Marks)**– An appreciation that the measures may be useful in giving a general impression OR that they have limitations OR some reference to the individual measures in relation to the data OR that other measures might be more useful.

Indicative content
• The mode cannot be calculated/trimodal/ 1,6,10.
• The mean is 5.41 / approximately 5.5.
• The median is 5.5.
• There are limitations to each measure of central tendency.
• Measures of central tendency have limited use in the context of the data
since it is really about identifying differences and patterns.
• Other measures might be more useful eg interquartile range, range

Question 5a

Suggest why one set of data you collected in your physical fieldwork enquiry may not have been accurate.

There is an expectation that the response should relate to the physical fieldwork enquiry.

One data set only which should be clearly identified.

Accept any reasonable idea which focuses on accuracy/reliability.

Max 1 mark for generic point(s), which might include:
• not enough data
• poor sampling
• errors with equipment
• data recording affected by the weather
• because of the risks associated with data collection.

Developed points (2 marks)

Allow basic or generic point which then links to specific physical enquiry.

• Only collecting data on one day (1) meant that we couldn't see changes in vegetation over time (d) (1)
• We were unable to find all the painted pebbles (1) so the measurement of longshore drift was inaccurate (d) (1)
• The clinometer was sticking(1) so getting accurate slope measurements was difficult (d)(1)
• The river was in flood(1) so it was not possible to accurately measure the width of the channel.(d)(1)

Max 1 mark if reference to human geography investigation.

Question 5b

Identify one potential risk in your physical geography fieldwork and explain how the risk was reduced.

There is an expectation that the response should relate to the physical fieldwork enquiry.

1 mark for the clear identification of a risk which is linked to the physical geography enquiry (be aware that some risks may well be generic/vague, for example weather based risks/becoming isolated).

Risks may include:
• The land was steep/uneven ground
• The temperature was very high/very cold
• The risk of becoming isolated
• The river was running fast
• The tide came in quickly
• The cliff face was unstable

Risks may be expressed as outcomes eg slipping, falling, drowning

Up to 2 marks for identifying way(s) of reducing the identified risk:

• There was a risk of becoming isolated or lost (1) so we all carried mobile phones (1)
• The river was running fast (1) so we carried out our measurements in a safer location (1)
• The temperature was too hot (1) so we applied suncream (1) and we wore hats (1).
• There was a risk of slipping (1) so we wore appropriate footwear (1) and we carried walking poles (1)
• The cliff face was unstable (1) so all students were issued with hard hats (1) and were told not to go nearer than 5 metres of the cliff (1).

Alternatively 2 marks for a developed idea:

• The temperature was too hot (1) so we applied suncream (1), which meant that we were unlikely to be affected by sunburn (d) (1)
• There was a risk of slipping (1) so we wore appropriate footwear (1) so we didn't fall over and injure ourselves (d) (1)
• There was a risk of becoming isolated or lost (1) so we all carried mobile phones (1). This meant that we could contact the teacher if there was an emergency (d) (1)
• The river was running fast (1) so we carried out our measurements in a different location (1), which meant that we didn't fall over in the river(d)(1)
• The cliff face was unstable (1) so all students were issued with hard hats (1) to avoid injury from being hit by falling rock (d) (1)
No credit for repetition of initial risk.

Max 1 mark if reference to human geography investigation.

Question 5c

Assess the suitability of the location chosen for your human geography enquiry.

- **Level 3(5-6 Marks)** – Detailed reference to a range of factors which made the chosen location suitable for the human geography enquiry which offers explanatory observations about why it was suitable in relation to the enquiry OR a balanced and reasoned account of the factors which made the location more or less suitable. Offers evaluative judgement.

Indicative content
The command is "assess the suitability" so there is an expectation of a judgement which is supported by evidence. So the focus of the question is an evaluation of the degree to which the location of the human geography enquiry was suitable.

• Students may adopt an approach which assumes suitability and identifies evidence in order to support this view.

• Students may adopt a more evaluative approach by considering both advantages and disadvantages of the location.

• There should be an expectation that students will consider the question in relation to the enquiry process, for example:

o the scale of the enquiry

o links to geography

o availability of data

o reliability and accuracy of data

o capacity to collect sufficient information to draw reasoned conclusions.

Question 5d

To what extent did the data collected for one of your enquiries allow you to reach valid conclusions?

- **Level 3 (7-9 Marks)**– Detailed reference to the usefulness of the data in relation to the aims of the enquiry with some appreciation of whether it provided sufficient evidence to draw effective conclusions. If it is felt that the data did provide sufficient evidence/did not provide sufficient evidence there needs to be evaluative observations supporting this view.

Indicative content

The command is "to what extent" so the focus of the question is an evaluation of the degree to which the data collected allowed the student to reach valid conclusions. So there is an expectation of a judgement which is supported by evidence.

• 'Valid conclusions' can be interpreted in different ways.

• The response should be seen in relation to the title of the enquiry and the relative challenge of obtaining data.

• Students might consider the amount of data or the spread of data (across time).

• Students might consider the question in terms of reliability/accuracy.

• The question can be considered in relation to both primary and secondary evidence.

• It is expected that students will consider "sufficient evidence" in relation to the aims of the enquiry and the extent to which the data allowed conclusions to be valid.

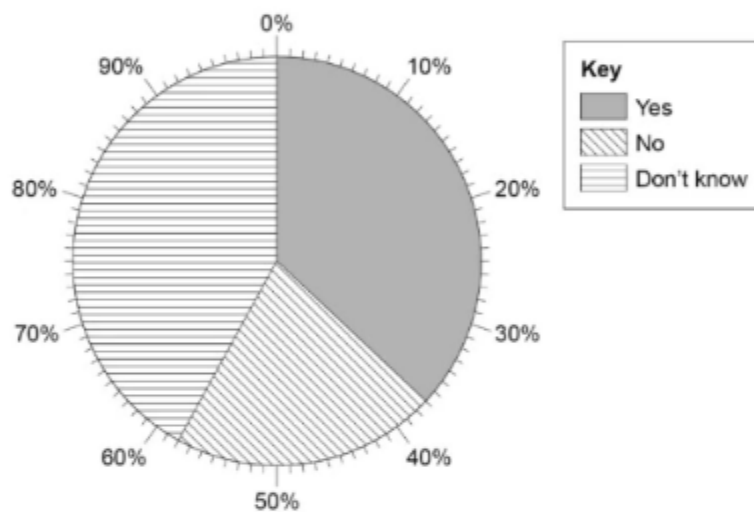• Credit reference to additional data as implied evaluation.

Question 6a

Complete the pie chart below to show the results of Question 2 in the questionnaire (Figure 4).

Two sectors completed accurately and shaded in correct order for 1 mark.

No – 21%

Don't know – 42%

Question 6b

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.

- 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).

Question 6c

To what extent can the student draw reliable conclusions from the data?

The answer must be linked to the original aim of the enquiry, 'Does the town centre have a parking problem?'

- **Level 2 (3-4 Marks) (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.

<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.
- 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.

Question 6d

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).

Question 6e

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).

Question 6f

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)

Question 7a

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.

Question 7b

In 2001, how many years lower was life expectancy in the study area than the city average?

9

Question 7c

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

Question 8a

For one of your fieldwork enquiries, suggest how anomalies in your data could affect your fieldwork enquiry.

Answers can relate to either physical or human geography enquiry.

Examples can include:

1 mark for identifying a basic idea

- Gives data that doesn't fit with the rest of the pattern (1).
- Gives irregular data (1).
- Can be difficult to identify in raw data (1).
- Only become apparent in the results (1).
- May show the need to investigate further(1).
- Make data less accurate/harder to use/compare(1).

2nd mark for development of link

- Gives data that doesn't fit with the rest of the pattern (1) that can lead to inaccurate results (d)(1).
- Gives irregular data (1) that can impact on the conclusions drawn (d)(1).
- Gives irregular data (1) that could be used in any evaluation carried out in relation to the enquiry (d)(1).
- Can be difficult to identify in raw data (1) so data collection methods aren't change/improved (d)(1).
- May show the need to investigate further(1) so that more data is collected(d)(1).

Credit reference to specific anomalies in the student's fieldwork enquiry.

Question 8b

Justify the use of one of the following in your human geography enquiry:
- **maps**
- **photographs**
- **field sketches.**

Answer must relate to the **human** geography enquiry.

Max 1 mark if reference to **physical** geography investigation.

Answers will be dependent upon the type of investigation being undertaken.

Credit can only be given to **one** technique.

1 mark for saying why they were used/how they were useful.

- Useful for putting data on (1).
- To show the location of the enquiry (1).
- Useful for comparing different sites (1).
- Useful for interpretation (1).
- Gives a good visual appreciation of the landscape (1).
- A good way of identifying important features (1).
- Quick way of getting information (1).
- To compare different sites (1).
- Quick way of getting information (1).
- More accurate than a sketch (1).

2nd mark for limited explanation

- Useful for putting data on (1) to show links/relationships (d)(1).
- To show the location of the enquiry (1) which gives a clear visual presentation of the site(s) used (d)(1).
- To compare different sites (1) to show differences/similarities/changes at each site (d)(1).
- Quick way of getting information (1) which records accurate details (d)(1).

3rd mark for well-developed point and clear reasoning

- Useful for putting data on (1) to show links/relationships (d)(1) as different data sets can be shown on one presentation technique (d)(1).
- To show the location of the enquiry (1) which gives a clear visual presentation of the site(s) used (1) and their inter-relationship (d)(1).
- To compare different sites (1) to show differences/similarities/changes at each site (1) which link back to the original aim/theory of the enquiry (d)(1).
- Quick way of getting information (1) which records accurate details (1) that can /quickly/easily be referred back to (d)(1).

Credit also the view that these presentation techniques may not be useful, where qualified.

Question 8c

Assess the effectiveness of your data collection method(s).

Answer must relate to the **physical** geography enquiry.

- **Level 3 (5-6 Marks)(detailed)** evaluation of the effectiveness of the identified data collection method(s).

<u>Indicative content</u>

The command word is 'assess' therefore there is an expectation that the candidate provides a rationale or gives reasons for the effectiveness of the data collection method(s) in collecting data that is accurate.

Any method of data collection is acceptable but the method(s) selected must relate to a physical geography fieldwork investigation.

Description of the method(s) may be present but is not required. The focus should be on the effectiveness of the data collection method(s) used.

The effectiveness can be discussed in terms of the methods being effective or ineffective:

- a well-chosen method will allow the collection of enough data in a short period of time
- the method has been selected to collect appropriate data to match the requirements of the enquiry
- the method supports the collection of data which can be subsequently analysed
- the method collects numerical data which enables a statistical analysis to be carried out
- methods selected allow for repeat visits and/or visit to several sites
- methods were selected to match the equipment available
- sampling strategies and/or sample size were planned into the method used.
- methods chosen allowed accurate measurements to be taken
- weather conditions could impact on the ability to measure and /or record data
- data collection methods, such as systematic sampling, could be affected by a lack of accessibility to the site.

other external factors.

Question 8d

For one of your fieldwork enquiries, to what extent did your results and conclusions meet the original aim of your enquiry?

- **Level 3 (7-9 Marks) (detailed)** reference to both results and conclusions to provide a detailed evaluation of how they supported the original aim of the enquiry.

Indicative content

The command is 'suggest' so the focus of the question is a suggestion of how the results gained and conclusions drawn supported the original aim of the enquiry and supported the student to be able to reach a judgement which is supported by evidence.

- The response should be seen in relation to the original aim of the enquiry.
- Students might consider the question in terms of accuracy/validity.
- Students might consider the original aim of their enquiry as to its appropriate/inappropriateness.
- Students might consider the accuracy of their results and how this affected the conclusions they drew.
- They may consider how far their conclusions supported them to reach a judgement about the original aim of their enquiry.
- Other data that could be useful to the enquiry but wasn't collected could be discussed.
- They may refer to data collection methods when discussing accurate/inaccurate results leading to valid/invalid conclusions.

Spelling, punctuation and grammar (SPaG)
High performance

- Learners spell and punctuate with consistent accuracy.
- Learners use rules of grammar with effective control of meaning overall.
- Learners use a wide range of specialist terms as appropriate.

Intermediate performance

- Learners spell and punctuate with considerable accuracy.
- Learners use rules of grammar with general control of meaning overall.
- Learners use a good range of specialist terms as appropriate.

Threshold performance

- Learners spell and punctuate with reasonable accuracy.
- Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall.
- Learners use a limited range of specialist terms as appropriate.

No marks awarded

- The learner writes nothing.
- The learner's response does not relate to the question.
- The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.

Question 9a

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)
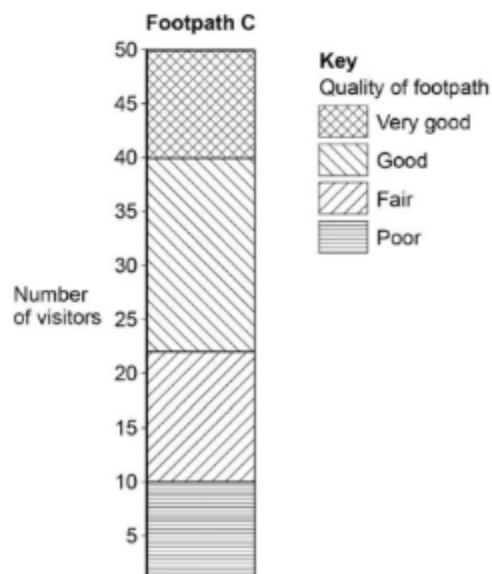
Question 9b

What percentage of visitors thought the quality of Footpath C was very good?

20%

Question 9c

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)

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?'.

Question 9d

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.

Question 9e

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.

Question 9f

Complete Figure 7 by adding the following information.

Both sets of appropriate symbols required for 1 mark (2 buses 4 cars)

Accept any reasonable representation.

Question 9g

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.

Question 9h

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".

Question 9i

Complete the table below (Figure 10) for town centre A.

Figure 10

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

Question 9j

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

- **Level 2 (Marks 3-4) (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

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)