



Advanced Certificate in Market & Social Research Practice

EXAMINATION ANSWER GUIDE

24th June 2015
10.00am – 12.30pm

Instructions given to Candidates

- Time allowed 2 hours 30 minutes
- Candidates must answer questions A, B, & C in Section 1
- Candidates must answer TWO questions from the six in Section 2
- All answers must be written in your Examination Answer booklet

Important Note: The requirement is for candidates to complete questions A, B & C in Section 1 and two questions from six in Section 2, failure to do this by either selecting more or less questions than the requirement may result in the paper being marked as non-compliant. Recommended times are detailed in each section to assist candidates in completing all the questions in the time available.

Instructions for Examiners

The following Answer Guide is not intended to provide a comprehensive guide to all possible points in response to exam questions.

Examiners should give credit for any points not included in the Answer Guides but which are credible responses to the question asked.

Examiners should note that the aim of many of the questions is to test the candidate's ability to apply knowledge to given contexts. However, candidates may fail to make full reference to the context in some cases. In these cases, examiners are required to assess the extent to which the information given meets the needs of the context. The following guidance has been produced for examiners:

- Credit should be given for information which is relevant to the question, even if it does not make overt reference to the context
- Some credit should be given for information which has some relevance to the context but which needs to be more focused to be fully effective
- Credit should not be given for information which is not relevant to the context.

The research problems contained in this material are fictional, any similarity to any real-life organisation, company or business is entirely unintended.

With members in more than 50 countries, MRS is the world's leading authority on research and business intelligence.

MRS Advanced Certificate Examination Answer Guide
24th June 2015
© The Market Research Society 2015



MRS
The Old Trading House
15 Northburgh Street
London EC1V 0JR

Telephone: +44 (0)20 7566 1805
Fax: +44 (0)20 7490 0608
Email: profdevelopment@mrs.org.uk
Website: www.mrs.org.uk

Company Limited by guarantee. Registered in England No 518686. Registered office as above.

Section 1: Compulsory question (Recommended time: 50 minutes)

This section tests problem identification and problem solving using a number of skills. The section accounts for one-third of the total marks.

Read the following case study and answer ALL 3 questions below.

NWLA is a district council, responsible for running public services in a remote and rural area of the country. The main centres of population in the area include a principal town, small villages and 5 outlying islands. The area's only hospital, secondary school and library are in the town. The council offices and the area's main shopping centre are also located there.

NWLA runs the public transport service for the area, which takes the form of a small fleet of buses. Privately owned ferries run between the islands and the mainland ferry terminal, 5 miles outside the town, and the buses serve as the main link between the town, the villages and the terminal.

With an increasing population of older people in the villages and islands, along with a growing number of school-age children, NWLA views public transport as essential for linking people with public services. An increase in tourism to the area in recent years has also highlighted the need for transport both for tourists and for the local people who work in the hotels and small businesses in the villages and islands.

In addition, NWLA is keen to promote travel by public transport to reduce pollution and congestion on the narrow roads in the area.

NWLA wishes to draw up a plan for how the transport service will run for the next five years, including for example, the routes to be served and the frequency of service on those routes. To devise an effective plan it needs robust evidence. NWLA has therefore decided to commission research among local residents.

NWLA has commissioned your agency to conduct the research.

Question A

NWLA wants to gather information from adults living in the area, via a survey, using structured questions. Identify at least 3 types of information which the survey should gather to help the local authority make its planning decisions. Give reasons for your suggestions.

(Weighting: one third of total)

This part of the question requires candidates to identify some of the information needs for this project. Candidates should identify at least three categories of information needed by the district council, along with a justification of why this information is needed. It should be noted that this survey is for adults only, thus avoiding the need to gather information from and gain informed consent for the participation of children/young people.

Stronger candidates may identify more than three categories and/or provide a thorough rationale for their choices. Weaker answers may give very generic suggestions and fail to relate their choices to the needs of this specific context.

Some examples of the types of information needed include the following. Credit should also be given for any additional/alternative suggestions which are shown to relate to the needs of the context.

Geodemographic data

e.g. age, occupation, and where individuals live (i.e. islands; villages; towns).

- *This information will a) help to ensure that the sample is representative of the population of the area and b) identify which groups are heavier/lighter users of public transport.*

Current transport use

e.g. (how frequently) do participants use public transport? (how frequently?) do they use car/ferries? Do they use any other mode of transport?

- *This information will help identify patterns/groups of users/non-users.*

Attitudes and opinions about public transport in the area

e.g. what are participants' views on public transport in general? What do they feel about current services? What would make them change their behaviours/preferences?

- *This information will help identify where changes/improvements might need to be made.*

Question B

NWLA needs to be sure that the survey sample is representative of the adults living in the area. Design a sampling plan for this stage of the research project. The plan should outline:

- the population of interest
- the sampling approach you recommend
- the sample sources or sampling frames you intend to use

Give reasons for the suggestions you make.

(Weighting: one third of total)

This question requires candidates to devise a sampling plan for the quantitative phase. Candidates are required to provide 3 elements, each with a clear justification. Stronger answers are likely to identify relevant ethical issues whilst weaker answers may fail to present a clear justification or identify any ethical issues.

Population of interest

The question asks candidates to demonstrate that they understand the need to define the population of interest before drawing a sample. At pass level, candidates should present a clear definition of the population of interest with at least some reference to the scenario or context and the needs of the client. Stronger answers are likely to discuss the population of interest in greater detail, noting issues that might be problematic, for example the spread of the population across the area – the fact that there are those living on islands and those in villages. Weaker answers may provide a basic description and little or no reference to the context.

Sampling approach

The question asks the candidates to identify an appropriate approach for sampling the adults living in the area.

Candidates are likely to choose either random or quota sampling for this project. They should provide a clear rationale for their choice.

- *Random sampling may be appropriate as the sample is primarily people living in the district council area and comprehensive sample frames may be available (e.g. registration for local taxes).*
- *Quota sampling may be appropriate if there is no comprehensive sampling frame but there is sound information on the make up of the local population to allow quotas to be drawn up.*

Stronger answers may discuss the choice of sampling approach in the context of the data collection method they plan to use (e.g. in home face-to-face, or street, or telephone). Stronger answers may also note the benefits and limitations of each approach before selecting their chosen approach. They may also suggest how to address limitations. Weaker answers may simply provide a generic answer and make little or no reference to the context or to the method of data collection.

Sample sources / frames

This part of the question requires the candidate to identify how they will draw a sample which is representative of the population of interest and appropriate to the sampling approach the candidate has chosen. As a result, there should be clear links between this section and the previous sections.

At pass level, the candidate should identify a minimum of one appropriate sample source, along with a justification of the choice. Stronger answers may provide greater depth of analysis of the

benefits and limitations of the sources identified, or greater depth of rationale for the choices made.

Some suggestions for sample sources include the following:

- *Electoral data, or other voter registration data as applicable to the country, or property tax data*
- *List of users of NWLA services (e.g. travel pass holders; people registered for other NWLA services including Library services)*

Question C

NWLA also wants to gather the views of children living in the area and has suggested that the agency conduct 2 group discussions with students from the local school, aged between 11 and 16.

Outline the steps the research agency should take to ensure that they conduct research with the students in an ethical and professional manner.

(Weighting: one third of total)

Candidates are expected to demonstrate a clear, practical understanding of key ethical issues relating to conducting research with children. At pass level, candidates should identify a minimum of three issues, two of which should relate to informed consent and to gaining permission for the research. Better answers may highlight where research with children differs from research with adults, and may draw clear, appropriate references from the MRS Code of Conduct.

Main issues here:

- *Permission to interview – informed consent.*
- *Permission gained from the responsible adult e.g. parent, guardian, headteacher or the teacher (responsible adult)*
- *Reassurance of confidentiality.*
- *Parental consent should be considered in addition to the headteacher – best practice*
- *Consent of the children and the right to opt out.*
- *Clear explanation at all stages of what is involved in the research, who is conducting it (who will be present) and how the findings will be reported/used.*
- *Identify appropriate environment for discussion – e.g. holding simultaneous groups in a large room or hall will ensure that interviewers are not alone with children.*
- *Collect and hold all information in line with Data Protection Act.*
- *Consider whether the content of the research may create tension between the child and their parents/guardian. If a concern parental or guardian consent should also be obtained.*
- *Topic guide should be sensitive to the language, needs and feelings of the age group being researched.*
- *Research should avoid questions which might result in a child making unreasonable demands on a parent/guardian.*
- *Thank You leaflet must be given at the end of all interviews which includes contact details.*
- *Criminal Record Bureau checks might need to be conducted before interviewers conduct research with children, depending on whether frequent contact is planned.*
- *If incentives are to be used there should be age appropriate and detailed when responsible adult consent is being obtained.*

Section 2: Optional Questions (Recommended time: 100 minutes)

This section accounts for two-thirds of the total marks.

Answer any TWO questions from the SIX in this section. Give a full answer to each of the questions you choose.

Question 1

For each of the five stages of a research project, listed below, explain why each stage is important in delivering effective, ethically robust findings to the client. List the questions you need to consider at each of the stages.

1. Analysing the brief
2. Devising the sampling plan
3. Designing the data collection tools
4. Developing the analysis plan
5. Presenting the results

(Weighting: one-fifth of total for each of the 5 stages)

This question requires candidates to demonstrate their understanding of how to interrogate the research process and develop appropriate responses to a research requirement. Candidates need to describe the questions they need to consider and explain clearly why this analysis is needed in the context of ethically-robust research.

Candidates need to provide appropriate answers to a minimum of three of the five sections to pass this question. Where appropriate, candidates should mention ethical issues.

Stronger answers may provide a range of questions to consider and strong justification for their inclusion. These answers may be supported by strong practical examples, including an awareness of the parameters of time and budget and ethical issues at all stages. Weaker answers may simply list the information needed at each stage. They may fail to provide practical examples to support answers.

Points made can include some or all of the following. These points are indicative rather than comprehensive, and credit should be given for any issues identified which are well-supported with a rationale.

Analysing the brief

The researcher needs to analyse:

- *The client's business need: why is the research needed? What problem does the client need to solve? How do they want to use the information? Without this, the solution may not address the problem.*
- *The budget and time available: This information will define the potential 'size' of the project and the methods which might be chosen. Without this analysis, the proposed project may not fit the client's needs.*

Developing a sampling plan

The population of interest: If the population of interest is not analysed and identified appropriately, the resulting research may not provide valid findings – and, in the case of quant work, will not be representative.

What is the most appropriate approach to sampling? There is a need to identify how much is known about the population of interest and how contactable, and combine this with the type of information needed, in order to define the most appropriate approach to sampling. Without this combined analysis, the researcher may end up with a sample which does not provide valid information and/or data which is not representative, therefore meaning that no valid conclusions can be drawn.

Sample size: The researcher needs to consider what size of sample will provide enough data to address the problem. This might take the form of a percentage of the population or a defined number. In qualitative work, where results are not taken as representative, there is still a need to consider how much information is needed.

Sample source/frame: The researcher needs to consider how the sample will be contacted, and where the information for contact is likely to be held. Without this analysis, the sampling plan may be simply hypothetical, and may lead to unachievable samples.

Developing data collection tools

What are the information needs? Without identifying clearly the information the client needs to address the problem, the research will not provide achieve its aims. Therefore, it is vital to analyse the research problem to identify what questions need to be asked to provide the required information.

What is the most appropriate tool? Once information needs are identified, the researcher needs to consider the most appropriate tool for collecting that information within the budget constraints.

What is the most appropriate way of collecting the data?: Researchers need to recognise that tools can be deployed in a number of different ways and to consider the population, and the budget/time available, before deciding on the most appropriate approach to data collection. Without this analysis, the researcher may choose a tool which people cannot engage with (e.g. online research for a population who are not entirely online).

Developing an analysis plan

Understanding information needs in detail: Without a detailed understanding of the client's information needs, the researcher may provide simply a description of information rather than an analysis. Having a defined list of the questions which the research needs to answer will help inform the data analysis needs.

Identifying the tests needed to ensure validity/reliability: The researcher needs to understand how to test the raw data to ensure that it provides the results needed. This includes understanding how to address issues such as sampling error, limited response, lack of representation from specific groups etc.

The presentation of results

Selecting the most appropriate data: The researcher needs to be able to select the data needed to address the problem from the wide range of data gathered, whilst still presenting an accurate representation of findings. Without this filter, the researcher may overwhelm the client with detail without addressing the actual question.

Interpreting the data in relation to the question: How does the data answer the question? Simply presenting the findings without analysing how these should be interpreted may not answer the client's question (the 'so what?' question).

Identifying the most appropriate medium for the message: The researcher needs to understand the client's context in order to choose the most appropriate way of presenting the information. Without this, the impact of the research may be lost because the client isn't fully engaged.

Question 2

Apprenticeships are promoted as an important route into a career for young people leaving school. The Government is aware that parents' attitudes are the biggest factor in helping young people make their choices. It is keen to find out about parents' attitudes to apprenticeships, particularly when compared with university education.

Your research agency has been commissioned to investigate parents' attitudes to apprenticeships.

a) What are the key issues which you need to consider when planning research into attitudes?

(Weighting: one-third of total)

Candidates may begin by giving a definition of 'attitude' before beginning to discuss potential difficulties. Even without a definition of terms, the answer to this section should demonstrate that the candidate understands what is meant by 'attitude' and how this might differ from more superficial 'opinion' and from 'behaviour'.

At pass level, candidates are expected to identify and discuss a minimum of two potential issues or problems. Stronger answers may use the context given in the question to provide the illustrations.

Potential issues or problems which need to be taken account of include:

- *Differentiating between attitude and behaviour – the same behaviour in two people may not be the result of their similar attitudes.*
- *In quant research: complexity of an attitude means that a number of questions are required to get to uncover the true attitude:*
 - *Too few questions and the study may lack reliability/validity*
 - *Poorly worded questions and responses may not get to the heart of the attitude being investigated*
 - *Participants may be very sensitive to the wording of questions and not respond honestly*
 - *Ordering of questions and/or responses may bias the participants responses – the questionnaire needs to balance positive and negative*
 - *Items need to be closely analysed to identify how they correlate with each other*
 - *Response scales may not accurately record the participants responses*
- *Participants may be unwilling to disclose attitudes which are sensitive or not seen as socially acceptable.*
- *Participants may not be able to articulate the attitudes they hold.*
- *Qual. research interviews into attitude are seen by some to lack reliability.*
- *Suitability of scales for the survey method.*
- *Consideration of whether the attitude scale addresses socially desirable responding; willingness/ability of candidate to respond; non/ambivalent/neutral attitudes.*

- b)** You have been asked to prepare a questionnaire to collect data on these attitudes. Describe the steps you will take to ensure that the questionnaire measures the attitudes which you wish to explore. Give reasons for the steps you suggest.

(Weighting: two-thirds of total)

Examiners are reminded that this section of the question accounts for two-thirds of the marks awarded.

Candidates are expected to demonstrate a practical awareness of how to address the problems outlined in section (a). At pass level, a minimum of three steps should be mentioned and adequate rationale provided. Stronger answers will focus on the need to maximise both reliability and validity in the development of attitude statements, and will reflect on how the suggested steps can address these issues. Weaker answers are likely to provide generic steps rather than refer back to the context given in the question.

Possible steps include:

- *Generate possible attitude statements to form the basis of an item pool, possibly through an initial qualitative phase and/or literature review.*
- *Ensure more than one statement per 'attitude' (with balance of positive and negative statements) for inclusion in a pool.*
- *Rotate certain questions to avoid ordering bias*
- *Item analysis – how well does each item correlate to the others in the pool?*
- *Develop an appropriate response format – does the response really allow measurement of the attitude? Does the scale allow for an appropriate range of response?*
- *Pilot the attitude questions on the target group and analyse and evaluate the findings.*
- *Amend the final set of questions as appropriate.*

Question 3

A company has developed a range of aids to help people save energy in the kitchen. These include heat diffusers for cookers and special kitchen taps which regulate water flow. The company is carrying out a series of qualitative groups with homeowners to help create an identity for the new products, including a name, packaging and marketing images.

The groups will be carried out by a team of 3 moderators, each working in a different area of the country. Each moderator will conduct 3 groups. All of the groups will be digitally recorded.

a) Describe and give a rationale for the steps you would take to ensure consistency of approach across the 9 groups.

(Weighting: one-half of total)

Candidates are expected to identify a minimum of two steps, with detailed rationale, to meet pass level. Candidates with more steps may provide more limited rationale. Stronger candidates may identify sequential steps which can be taken and will provide clear justification for their suggestions.

- *Review the research objectives: Ensure that there is shared understanding of the aims and the type of information required.*
- *Review the discussion guide: Do all moderators agree on the aim and interpretation of the questions? Do all feel that all topic areas can be covered in the time given for the discussion group? Give an indication of the amount of time spent on each topic to ensure that all moderators are consistent with regards to the level of probing.*
- *Ensure agreement on how data will be recorded. E.g. audio? visual & audio? Also what data will be recorded – e.g. are you going to record non-verbal behaviour?*
- *Review the make-up of the groups (i.e. geographical spread; age groups etc.) What similarities and differences are there? Are there potential impacts on the data collection?*
- *Discuss the approach and structure of tasks. How are groups going to be warmed up? How and when are the projective techniques going to be used? What (if any) materials are to be used and how will they be used?*
- *Arrange meeting/communication following the first round if possible, to discuss and resolve any problematic issues, and to do debrief of early findings and examine their impact.*
- *First group observed by other moderators and reviewed before continuing other groups. If not practicable for other moderators to attend venues they could be sent recordings to view.*
- *Provide an analysis grid to all moderators in advance so they know what information is needed.*
- *Hold the groups on the same week – try and minimise differences in time so that there is no difference occasioned by different time of groups taking place.*

- b)** As the lead researcher on this project, you are responsible for analysing and reporting on the data gathered during the groups. Describe at least three steps you would take to ensure that your analysis of the data provides valid and ethically-robust information for the client.
(Weighting: one-half of total)

This section of the question asks the candidate to demonstrate their practical understanding of the analysis of qualitative data. The candidates are also asked to demonstrate that they understand how to ensure that analysis provides a valid and ethically robust interpretation of data. A minimum of three steps in the process should be identified to meet pass standard. Stronger answers may identify a wide range of issues and discuss these using appropriate terminology. Weaker answers are likely to be narrower in range and, although concepts may be described, terminology may not be used accurately.

Suggestions may include:

- *If possible, hold a brainstorming session with the moderators so all can bring their findings and contribute ideas, draw up the results together in consultation.*
- *Review all analysis grids together to get to know the data.*
- *Check recordings against notes made by moderators to ensure consistency in recording of ideas.*
- *Identify and code concepts from which a hypothesis can emerge.*
- *Make links and look for relationships within the data to generate a 'story'.*
- *Use flow charts/ diagrams/ mind maps to help focus thinking on relationships.*
- *Use relevant software (e.g. NVivo) to help interrogate the text and identify relationships/themes.*
- *Demonstrate where all concepts/conclusions are supported in the data.*
- *Construct analysis grid*

Question 4

A major retail chain is planning to redesign the layout of its flagship store. Your agency has been commissioned to conduct observation of the flow of customers through the current store layout using the company's CCTV system. The client plans to use the information from the research to inform the redesign.

- a) Discuss the benefits and limitations of using this type of observation to address the client's business problem.

(Weighting: one half of total)

At pass level, candidates should describe at least two benefits and one limitation with some acknowledgement of the context. Stronger answers will provide a greater range of benefits and limitations and/or a greater depth of discussion about the suitability of this approach in this context and with reference to ethical issues. Stronger answers are also likely to define or describe what type of observation this is.

Benefits of observation research in this context might include:

- *Researcher sees behaviour at first hand (not participants report of behaviour – e.g. where they went first; where there appear to be obstacles etc.).*
- *Researcher sees it (recorded) in real time – without the filter of memory or selection – so the whole journey through the store can be seen.*
- *Detailed and in-depth understanding of how people do things – e.g. there may be visible patterns in the journeys taken through the store at different times.*
- *Reporting actual participant behaviour to clients can be very persuasive.*

Limitations of observation in this context might include:

- *The observer will probably be unable to determine the reason for the behaviour – i.e. why a particular customer is behaving in a particular way.*
- *CCTV is limited as it does not include sound – observation limited to visuals.*
- *Potential for misinterpretation if observation isn't followed up to find out why people behaved in the way they did.*
- *Issues related to quality of recording – e.g. possible breaks, quality of images.*
- *Location of CCTV cameras limit what can be seen – this could be particularly problematic if the store is on more than one floor: What happens between floors?*
- *Unlikely to establish key issues on its own – need for investigation using other methods.*
- *Cannot test reactions to potential new layout.*
- *Can be more difficult to ensure that participants are aware that the recordings are being used for research.*

b) Outline the steps you would take to ensure that this observational research is undertaken in a professional and ethical manner at the following stages in the research process:

1. Before the research starts
2. During the research
3. Reporting the research results

Give reasons for the steps you suggest.

(Weighting: one-half of total)

Candidates are expected to demonstrate a clear, practical understanding of the key professional and ethical issues relating to observation research using CCTV. At pass level, candidates should identify the legal and code issues of using CCTV recordings. Stronger answers may highlight limitations of this approach and may suggest ways to address these.

The suggested steps may include some or all of the following:

Before the research:

- *Give a clear account to the client of the potential limitations of using observation research without any other type of data collection.*
- *Check to see if the client is notified to use their recorded images in this way – this is a Data Protection Act requirement.*
- *Check that the CCTV cameras are suitable for the purpose – e.g. positioned appropriately; appropriate quality of images etc.*

During the research:

- *The Code of Conduct and Data Protection Act requires the following:*
 - *Clear and legible signs must be placed where surveillance is taking place.*
 - *Cameras must be sited so that they monitor only the areas intended for surveillance. E.g. public parts of the store not staff areas.*
 - *Signs must state the individual/organisation responsible for surveillance, including contact name and the purpose of the observation.*

Reporting the results:

- *Images must not be retained longer than is necessary.*
- *As no direct consent can be obtained from the participants, identifiable participants recorded data must not be used in reporting. E.g. as part of the de-brief. Technology solutions such as blurring individuals face should be used.*
- *Limitations of the approach must be made clear.*
- *Conclusions disseminated must be clearly and adequately supported by the CCTV data.*

Question 5

A major client is keen that their organisation understands how technology is changing the gathering of information for the purposes of market research. They are particularly interested in finding out how the internet is used for gathering primary data. You have been asked to give a presentation on this subject to the client's marketing team.

- a) Describe at least three different ways in which the internet can be used to gather primary data. For each example you give, outline the advantages and any limitations of gathering the data in this way.

(Weighting: one-half of total)

Candidates are required to describe and provide a brief evaluation of a minimum of three ways in which the internet is used to gather primary data. At pass level, answers should identify three uses and provide a minimum of one benefit and one limitation of each. Weaker answers may provide a very limited range of suggestions. For example, they may focus on different ways of carrying out surveys online. Stronger answers are likely to provide a wider view of the issue, with a strong evaluation of each.

Some of the uses might include:

- Quant data via online surveys
- Qual data via online focus groups/interviews
- Crowdsourcing via social networking sites
- Tracking of online behaviour
- Online ethnographic techniques e.g. online diaries

Benefits

*Reach (accessibility, size, scope, targetting, multicountry)
Convenience, versatility
Speed of data collection
Ease of data collection
Speed of analysis
Ease of analysis
Overall cost*

Limitations

*Know-how/technology for set up and analysis
Up front cost
Sample issues including response rate
Quality of response
Overall data quality*

- b)** Select one of the data-collection approaches you described in a). Describe the steps you would take to ensure that the data is collected in an ethical manner, with particular reference to the principles of informed consent, confidentiality and anonymity.

(Weighting: one-half of total)

This section of the question is closely linked to the previous, asking candidates to demonstrate that they understand the ethical issues arising from the suggestions they have made and how to address those issues.

Although the steps outlined will vary according to the example chosen, the answer should demonstrate that the candidate recognises the underpinning ethical principles of informed consent, anonymity and confidentiality. Stronger candidates may make specific reference to MRS Guidelines & Code of Conduct. Weaker answers may provide a very generic description of how to ensure ethical practice, with limited reference to Section a).

Specific examples of how the data collection will adhere to the main principles is dependent on the data collection method chosen. However, suggestions should demonstrate that the candidate recognises that participants need to:

- *Be informed that research is taking place, and the purpose of that research.*
- *Have the option to opt out.*
- *Ensure that the research does not interfere with the participant's primary purpose for visiting a site (e.g. ensure that participants can 'escape' from pop ups appearing on a non-research site).*
- *Have the option to gain more information about the research taking place.*
- *Know how their data will be stored and used.*
- *Be reassured that their data will be held in confidence and reported with anonymity.*
- *Know that the data being collected is commensurate with the research objectives.*

Question 6

You are an Insight Manager and are planning a quantitative research project. Your internal client has heard that errors can occur in research, and is keen to find out how you will prevent these.

- a)** Describe what is meant by non-sampling error. Identify where it might occur in the research process and describe the possible effects that non-sampling error might have on a research project. Illustrate your answer with examples.

(Weighting: one-half of total)

Candidates are expected to provide a clear and convincing definition of non-sampling error and to be able to identify areas which need to be considered when looking for sources of non-sampling error. At pass level, answers should identify at least three areas which need to be considered in relation to non-sampling error, and to provide examples which demonstrate a practical understanding of the issues. Weaker answers may simply provide a list of places where error can occur without considering the practical implications, or may focus on a very restricted area of the research process. Stronger answers are likely to provide wide-ranging suggestions across the process, and/or to provide informed insight into the effects of error in practice.

Suggestions may include some or all of the following:

- errors in the research design, e.g. inaccurate definition of problem
- errors in the design of questions and the design of questionnaires
- interviewer errors and/or data collection errors
- participant error (e.g. dishonest answers; incomplete answers)
- data processing errors (e.g. missing data)
- translation errors if multiple languages are used.
- coding errors

- b)** Describe the practical steps you might take to prevent the errors you have identified occurring.

(Weighting: one-half of total)

The strength of answers to this section will depend on the range of ideas identified in section (a). Candidates should supply a minimum of two steps, described in depth, or three steps with limited justification/illustration in order to pass. Stronger answers are likely to identify clear links between this section and section (a), and include a range of steps across the research process, with clear justification for each. Weaker answers may fail to make links between this section and areas identified in section (a). They are likely to restrict their focus on a narrow range of stages within the research process, and/or a limited range of practical ideas.

Some examples of suggestions include:

- *checking research objectives against the problem and business objectives, and checking each stage against the research objectives*
- *using pre-existing validated/reliable scales*
- *piloting the questionnaire/questions*
- *thorough training of interviewers if used*
- *clear and thorough briefing of interviewers if used*
- *back-checking of participants*
- *clear and thorough briefing for data processors*
- *ensuring effective data cleansing*
- *translation checking to ensure consistency both pre and post data collection*