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| Q | Indicative content | Marks | Guidance |
| 1 | **Mark Band 4 (10-12 marks)**   * An excellent explanation, which shows:   + thorough knowledge and understanding of the term artificial intelligence   + an excellent description of a wide range of smart devices for the home and strong knowledge of the impact of giving DNA at birth. * Writing is very well structured and organised, using accurate grammar, punctuation and spelling. * A range of specialist terminology is used with accuracy.   **Mark Band 3 (7-9 marks)**   * A good explanation, which shows:   + generally secure knowledge and understanding of the term artificial intelligence   + A good description of some smart devices for the home and some good knowledge of the impact of giving DNA at birth. * Writing is generally well structured and organised, using mainly accurate grammar, punctuation and spelling. * Specialist terminology is used with accuracy.   **Mark Band 2 (4-6 marks)**   * A basic explanation, which shows:   + some knowledge and understanding of the term artificial intelligence.   + A basic description of some smart devices for the home and some basic knowledge of the impact of giving DNA at birth. * Writing shows some evidence of structure though some errors in grammar, punctuation and spelling affect meaning. * Basic use of specialist terminology.   **Mark Band 1 (1-3 marks)**   * A limited explanation, which shows:   + limited knowledge and understanding of the term artificial intelligence   + A limited description of some smart devices for the home and some basic knowledge of the impact of giving DNA at birth.   + Some errors in grammar, punctuation and spelling, which affect clarity of communication.   + Limited use of specialist terminology.   **0 marks**  No attempt to answer the question or response is not worthy of credit | 8 | Ethical issues  Positive:   * Extend the national DNA database to include the whole population… * ….and could eliminate the current ethnic and gender bias, for example, towards young, black men. * Makes it easier for police to identify missing people and unidentified remains. * The Forensic Genetics Policy Initiative seeks to set international standards for DNA databases that respect and protect human rights. * The right to live in a society free of crime.   Negative:   * Increased possibility of false matches. * Looking more into partial matches * …leading to innocent people being arrested. * Keeping a DNA database is seen by many as a further infringement of privacy and human rights. * Risk data could be shared with third parties… * ….could be misused by the government. * Information in DNA is limitless because it holds a variety of information… * …..such as hair colour, eye colour and genetic diseases.   Legal issues  Positive   * The DNA Identification Act of 1994 explicitly allows database records to be made available…. * …. for research and development as long as all personally identifiable information is removed.   Negative   * Sensitive data stored in a digital database… * …vulnerable to hackers/network attacks... * …this could become a breach of the Data Protection Act   Local communities  Positive   * It could lead to solving crimes quicker * ……and more accurate as forensic material from a crime scene. * ……can be compared to the database in order to identify a list of potential suspects. * Having a larger database to cover the whole population… * ……is far more useful as it covers a wider pool of individuals. * We all have the right to live in a society free from crime.   Negative   * Discrimination might occur if the police decide to use the DNA from crimes… * …they might pursue crimes committed by members of over-represented groups. * Could alienate law-abiding citizens… * …they may feel like they’re being treated as suspects/criminals.   Government  Positive   * Time and money can be saved by using DNA evidence to identify suspects quickly. * …this could save money in the long run. * Reduction of time and resources used by the police force because of this technology.. * ….this will decrease the need for the government to invest further…. * …money can then be used to support other services.   Negative   * Maintaining a DNA database is hugely expensive…. * ….The staff , facilities and equipment used to process and manage DNA samples costs large amounts of money…. * ….using more taxpayer’s money. * Data stored in the database could be misused by the Government…. * …..For example, it may reveal private information, such as paternity. |