**CODING SCHEME**

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| **SAMPLE DESCRIPTION** | |
| 1. Case | C, R. v [2010] EWCA Crim 2578 |
| 2. Date of appeal hearing | 131010 |
| 3. Date of original trial/conviction | 280510 |
| 4. Keywords found in case | 8 |
| 5. Decision *Provide quote if short, otherwise summarise* | 1 |
| 6. Number of pages | 12 |
| **DEFENDANT DEMOGRAPHICS (code as 99 if not stated and cannot be inferred)** | |
| 7. Defendant’s gender? | 1 |
| 8. Defendant’s age (at time of offence)? | 99 |
| 9. Defendant’s nationality (at time of offence)? | 99 |
| 10. Defendant’s employment status (at time of offence)? | 99 |
| 11. Defendant’s education level (at time of offence)? | 99 |
| 12. Defendant’s relationship status (at time of offence)? | 99 |
| 13. Did defendant have any children (at time of offence)? | 99 |
| 14. Was defendant homeless (at time of offence)? | 99 |
| **APPEAL CASE/HEARING FACTORS (code as 99 if not stated and cannot be inferred)** | |
| 15. When was appeal initiated? (e.g., post-trial, post-conviction, post-sentence, other) | 1 |
| 16. Who is appellant? (e.g., prosecution, defence, other) | 1 |
| 17. What is appeal against? (e.g., conviction, sentence, both, other) | 1 |
| 18. What are the grounds/reason(s) for appeal? *Provide quote if short, otherwise summarise* | Based on the reports from the appellants expert adverting various issues with the DNA evidence, his counsel adduced that it was unreliable and made an application that the DNA evidence should be excluded. The single ground for appeal was that the judge wrongly ruled that the DNA evidence from [the FSS expert] was sufficiently reliable to be admitted in evidence. It was contended that the judge should have approached the matter objectively and given full reasons as to his independent objective view that the evidence was reliable, rather than simply accepting the subjective opinion of the FSS experts. Three issues arose on the appeal: (1) Was the ruling of the judge on the admissibility correct? (2) should the judge have made an order for a preparatory hearing? (3) What is the proper approach to dealing with the issues of admissibility raised? |
| 19. Was fresh evidence presented at appeal? **19b.** If yes, was it fingerprint/DNA/Digital evidence? **19c.** If no, what was it? | Q19: 2  Q19b: 99  Q19c: 99 |
| 20. Were new techniques used to re-examine old evidence at appeal? | 2 |
| 21. Were new fingerprint/DNA/Digital experts consulted by defence after original trial? | 2 |
| 22. Were new fingerprint/DNA/Digital experts consulted by prosecution after original trial? | 2 |
| 23. Did new prosecution fingerprint/DNA/Digital experts present evidence at appeal hearing? | 2 |
| 24. Did new defence fingerprint/DNA/Digital experts present evidence at appeal hearing? | 2 |
| 25. Was concern expressed at appeal hearing about qualifications, knowledge, skills or experience of any new prosecution fingerprint/DNA/Digital expert(s)? | 2 |
| 26. Was any concern expressed at appeal hearing about qualifications, knowledge, skills or experience of any new defence fingerprint/DNA/Digital expert(s)? | 2 |
| 27. Did prosecution and defence fingerprint/DNA/Digital expert conclusions disagree at appeal hearing? | 1 |
| 28. What were the main areas of disagreement between prosecution and defence fingerprint/DNA/Digital experts at appeal hearing? *Provide quote if short, otherwise summarise* | The disagreements were as follows: 1. Whether the quantity of the minor profile was such that stochastic variations had been sufficiently taken into account. 2. Whether there were more than two contributors. 3. Whether the way in which the process of analysis carried out had properly followed the applicable protocols. 4. Whether the samples had been handled, stored and recorded correctly. 5. The reproducibility of the runs. 6. The match probability calculation. 7. The applicable statistics. |
| 29. Did fingerprint/DNA/Digital expert express his/her confidence in conclusion at appeal hearing? **29b.** If yes, how? *Provide quote if short, otherwise summarise* | Q29: 2  Q29b: 99 |
| 30. Were any new probabilities of fingerprint/DNA match mentioned at appeal hearing? | 2 |
| 31. For DNA evidence, were any new contamination/error rates presented at appeal hearing? | 2 |
| 32. For fingerprint evidence, were any (new) points of dissimilarity between sample and print presented at appeal hearing? **32b.** If yes, how many? | Q32: 99  Q32b: 99 |
| 33. Did appeal court raise concerns about prosecution or defence team misunderstanding fingerprint/DNA/Digital evidence? **33b**. If yes, who raised it? | 1 |
| 34. Did appeal court raise concerns about jury at original trial misunderstanding or having difficulty understanding fingerprint/DNA/Digital evidence? **34b**. If yes, who raised it? | 1 |
| 35. Did appeal court raise concerns about judge at original trial misunderstanding fingerprint/DNA/Digital evidence? **35b.** If yes, Who raised it? | 1 |
| 36. Did appeal court raise concerns about application of either wrong case law at original trial or ignoring right case law? If yes, who raised it? | 1 |
| 37. Did appeal court raise concerns about errors in judge’s summing up of case at original trial? **37b.** If yes, who raised it? | 1 |
| 38. Did appeal court raise concerns about judge’s instructions confusing jury at original trial? **38b.** If yes, who raised it? | 2 |
| 39. Did appeal court raise concerns about how fingerprint/DNA/Digital evidence was presented at original trial? 39b. If yes, who raised it? | 2 |
| 40. Did appeal court raise concerns that weight of fingerprint/DNA/Digital evidence was overstated in court by either prosecution/defence/judge at original trial? **40b.** If yes, who raised it? | 1 |
| 41. Did appeal court raise concerns about inadmissible evidence being presented at original trial? **41b.** If yes, who raised it? | 1 |
| 42. Did appeal court refer to any existing case law? **42b.** If yes, which? | Q42a: 1  Q42b: Reed & Reed [2009] EWCA Crim 2698, [2010] 1 Cr App R 23; I, P, O, I & G [2009] EWCA Crim 1793; R v Broughton [2010] EWCA Crim 549; Hallett LJ in Z [2009] EWCA Crim 2476; Attorney-General's Reference (No. 1 of 2004) [2004] 2 Cr. App. R. 27; H [2007] 2 A.C.270 |
| 43. Name of appeal judge(s) | Lord Justice Thomas, Mr Justice Sweeney and Mr Justice Spencer |
| 44. Name of lawyer(s) in appeal hearing, including who they represent | Mr R Carey-Hughes and Ms A Faul for the Appellant. Miss L Wilding and Miss C Haughey for the Respondent |
| **ORIGINAL CASE/TRIAL CHARACTERISTICS (code as 99 if not stated and cannot be inferred)** | |
| 45. Date of crime (first date) | 99 |
| 46. Was defendant immediately treated as a suspect? **46b.** If no, then how was defendant immediately treated? | Q46: 2  Q46b: 99 |
| 47. Were there other suspects (arrests)? | 2 |
| 48. Did the defendant plead guilty or was he/she convicted at trial? **48b.** If convicted, then was the jury verdict unanimous or other? | Q48: 2  Q48b: 99 |
| 49. Was this the first trial? | 1 |
| 50. What offence(s) was defendant convicted of/plead guilty to? | 99 |
| 51. Was there circumstantial evidence in the case? **51b.** If yes, what? | Q51: 1  Q51b: Swabs taken from the victims vagina |
| 52. Was there any other evidence in the case? **52b.** If yes, what? | Q52: 1  Q52b: Expert evidence from an “overseas academic” and the Forensic Science Service expert |
| 53. Did defendant provide an alibi for whereabouts at time of crime? **53b.** If yes, was it corroborated? | Q53: 2  Q53b: 99 |
| 54. What was the defendant’s original sentence? | 99 |
| 55. Was case originally tried in Crown court or magistrates’ court? | 99 |
| 56. Name of judge(s) in original trial | 99 |
| 57. Name of lawyer(s) in original trial | 99 |
| **INVESTIGATIVE STAGE (code as 99 if not stated and cannot be inferred)** | |
| **COLLECTION** |  |
| 58. Was concern expressed at original trial or appeal about there being a chance of contamination of fingerprint/DNA evidence prior to sample collection from the crime scene? | 2  **Annotations:** |
| 59. For DNA evidence, was concern expressed at original trial or about where the DNA came from? **59b.** If yes, where? | Q59. 1  Q59b. The expert for the defence asserted that the quantity of DNA for the minor profile was below 50 picograms, therefore this the stochastic effects were likely to be considerable  **Annotations:** |
| 60. Was concern expressed at original trial or appeal about there being potential for evidence tampering/planting? | 2 |
| 61. Was there over a week delay between crime being committed and collection of fingerprint/DNA or Digital evidence from crime scene? | 99 |
| 62. How many fingerprint/DNA samples were taken from crime scene? | 2 |
| 63. Was only one method used to collect the sample(s) or multiple methods? | 1 |
| 64. Was concern expressed at original trial or appeal about the method(s) used to collect the sample? | 2 |
| 65. Was the fingerprint/DNA sample or Digital evidence in question considered by either the prosecution or defence experts to be partial or ambiguous? | 1 |
| 66. Were evidence requests made according to the legal rules? | 2 |
| 67. Was concern expressed at original trial or appeal about broken chain of custody i.e., who was looking after the fingerprint/DNA sample(s) or Digital evidence after they were collected? | 2 |
| **ANALYSIS** |  |
| 68. How much experience did the prosecution forensic examiner have? | 99 |
| 69. How much experience did the defence examiner have? | 99 |
| 70. Was concern expressed at original trial or appeal about the methods of fingerprint/DNA/Digital analysis used? | 1  **Annotations:** |
| 71. Was concern expressed at original trial or appeal about there being a chance of the fingerprint/DNA samples being degraded? | 2  **Annotations:** |
| 72. Did analysis involve ‘cold’ match from a database or comparison against a suspect? | 1  **Annotations:** |
| 73. Did initial examination of sample lead to conclusion that origin could not be determined? | 2  **Annotations:** |
| 74. Did initial examination of sample lead to conclusion that sample originated from defendant? | 2  **Annotations:** |
| 75. Was sample re-examined? **75b.** If yes, did re-examination change initial conclusion? | Q75. 2  Q75b. 2  **Annotations:** |
| 76. Was fingerprint/DNA/Digital examiner opinion/conclusion verified by another examiner? | 2 |
| 77. For fingerprint examination, how many points of similarity were found (if any)? | 99 |
| 78. Was fingerprint/DNA/Digital evidence destroyed before trial? | 2  **Annotations:** |
| 79. Was concern expressed at original trial or appeal about the quality of notes taken/report of the fingerprint/DNA/Digital examiner? | 2 |
| **EVIDENTIARY STAGE (code as 99 if not stated and cannot be inferred)** | |
| **EXPERT TESTIMONY** |  |
| 80. Did (main) prosecution fingerprint/DNA/Digital expert present evidence at original trial? | 1  **Annotations:** |
| 81. Was concern expressed at original trial or appeal about the qualifications, knowledge, skills or experience of prosecution fingerprint/DNA/Digital expert(s)? | 2  **Annotations:** |
| 82. Was prosecution fingerprint/DNA/Digital expert witness cross-examined by defence at original trial? | 1  **Annotations:** |
| 83. Did (main) defence fingerprint/DNA/Digital expert present evidence at original trial? | 1  **Annotations:** |
| 84. Was concern expressed at original trial or appeal about the qualifications, knowledge, skills or experience of defence fingerprint/DNA/Digital expert(s)? | 2  **Annotations:** |
| 85. Was defence fingerprint/DNA/Digital expert witness cross-examined by prosecution at original trial? | 2  **Annotations:** |
| 86. Was there a disagreement in conclusions made by prosecution and defence fingerprint/DNA/Digital experts at original trial? | 1  **Annotations:** |
| 87. Was concern expressed at original trial or appeal about quality of prosecution expert reports? | 2 |
| 88. Was concern expressed at original trial or appeal about quality of defence expert reports? | 2 |
| 89. Were probabilities of fingerprint/DNA match mentioned at original trial? | 1  **Annotations:** |
| 90. Did fingerprint/DNA/Digital expert express his/her confidence in conclusion at original trial? **90b.** If yes, how? | Q90. 1  Q90b. Para 5. It was said that there was a sufficient profile obtained from the partial profile at a sufficient number of loci to provide a match probability in the region of 1 in 100,000. Para 6. The minor profile was said by the FSS expert to show a match probability of 1 in over 3 million. After the analysis of the further swab taken from the victim and an analysis made combining the SGM+ and LCN results, a match probability of the minor profile to that of the appellant was 1 in over 50 million. Para 8. "The [FSS]'s DNA Interpretation model takes into account the possibility of stochastic variation, therefore in SGM+ and LCN analysis one would make an assessment of the quality of the electrophoretogram and reproducibility of the results. In my opinion stochastic variations are not an important issue in this case as aliquots from the same DNA extract have been run 6 times, the results were highly reproducible and showed no significant stochastic variation. In my opinion, these observations give a more reliable indicator of whether stochastic variation has occurred rather than the Quant value."  **Annotations:** |
| 91. For DNA evidence, were probabilities of match presented by prosecution expert at original trial? | 1 |
| 92. For DNA evidence, were contamination/error rates presented at original trial? | 2 |
| 93. For fingerprint evidence, did the prosecution expert declare a match/individualisation at original trial? | 99 |
| 94. For fingerprint evidence, how many points of similarity between sample and print were presented at original trial? | 99 |
| 95. For fingerprint evidence, were any points of dissimilarity presented at original trial? | 99 |
| 96. Did (prosecution or defence) fingerprint/DNA/Digital experts try to explain any inconsistencies in evidence at original trial? | 1 |
| 97. Was hearsay evidence presented at trial? | 2  **Annotations:** |
| 98. Was any bad character evidence presented at trial? | 2  **Annotations:** |
| 99. Did prosecution team fail to share relevant information with defence team before original trial? | 2  **Annotations:** |
| **JUDGE’S INSTRUCTIONS/JURY BEHAVIOR** |  |
| 100. Were visual images used to present fingerprint/DNA/Digital evidence at original trial? | 99 |
| 101. How did judge instruct jury to deal with fingerprint/DNA evidence? *Provide quote if short, otherwise summarise* | Para 11. No jury was empanelled |
| **ADDITIONAL DIGITAL QUESTIONS** | |
| **APPEAL CASE/HEARING FACTORS (code as 99 if not stated and cannot be inferred)** | |
| 102. For Digital evidence, were any technical problems presented at the appeal hearing? If yes, what? *Provide a quote if short, otherwise summarise* | Q102: 99  Q102b: 99 |
| **DIGITAL - INVESTIGATIVE STAGE (code as 99 if not stated and cannot be inferred)** | |
| **COLLECTION** | |
| 103. For Digital evidence, was concern expressed at original trial about problems securing the data? | 99 |
| 104. For Digital evidence were there any concerns about data being missed during investigation? | 99 |
| 105. For Digital evidence, was any data hidden over the network? | 99 |
| 106. For Digital evidence was any data hidden inside storage areas to make them invisible to the system commands and programs? | 99 |
| 107. For Digital evidence, was any data corrupted? | 99 |
| 108. For Digital evidence, was there any residual data wiping? | 99 |
| 109. For Digital evidence, was concern expressed at the original trial or appeal about data sources being damaged? | 99 |
| **ANALYSIS** | |
| 110. For Digital evidence was any data encrypted? | 99 |
| 111. For Digital evidence was any data hidden in a carrier file without modifying its outward appearance? | 99 |
| 112. For Digital evidence, was any techniques used to obfuscate the source of the attack? | 99 |
| 113. For Digital evidence, did the investigator have to analyse high volumes of data? | 99 |
| 114. For Digital evidence, were the investigators restricted to analysing only recent data stored on volatile memory? | 99 |
| 115. Were there any Co-defendants? 115b. If yes, how many? | Q115. 2  Q115b. 99 |
| 116. Where the case involved co-defendant/s, was there a mixed verdict? 116b. If Yes, what were the verdicts? | Q116. 99  Q116b. 99 |
| **NOTES – PLEASE WRITE ANYTHING THAT YOU THINK IS IMPORTANT BUT WHICH IS NOT CODED ABOVE. THIS MAY INCLUDE QUOTES.** | Para 4. The SGM+ process yielded a major and minor profile from the DNA sample. The minor profile obtained was compared with DNA on the national database. There were three possible matches: two were eliminated and the third was the appellant.  Para 5. The sample from the appellant as referenced on the database was then upgraded and subjected to the SGM+ process. This was then compared with the minor profile obtained from the vaginal swab of the victim. It was said that there was a sufficient profile obtained from the partial profile at a sufficient number of loci to provide a match probability in the region of 1 in 100,000. Para 6. The sample from the appellant was then subjected to LCN (LCN, Low copy number DNA) process. The minor profile was said by the FSS expert to show a match probability of 1 in over 3 million. After the analysis of the further swab taken from the victim and an analysis made combining the SGM+ and LCN results, a match probability of the minor profile to that of the appellant was 1 in over 50 million. In response to there being a disagreement between two experts, one appointed by the prosecution the other commissioned by the appellant, a meeting between the experts was convened. Despite further meetings taking place between the experts, the disagreements remained. There were further points as to the number of alleles that could properly be taken into account on the profiles obtained by the LCN process. Key arguments were advance by the defence (Para 13) and prosecution (Para 14) in relation to the quantity of DNA sample used as follows: Para 13. It was put to the judge that the amount of the minor profile was 50 picograms, the profile was inadmissible because it was below the stochastic threshold of 100-200 picograms. It was contended that the threshold set out in Reed & Reed applied to the profile of the minor contributor and not to the whole of the DNA analysed; as it was below 100-200 picograms it was ipso facto inadmissible. Para 14. The Crown contended that this was a misreading of Reed & Reed; the court had said that where quantities were below the stochastic threshold, it was the reliability of the profile that determined admissibility. There was no lower limit. Para 23. Issue 1: Was the DNA evidence admissible? Conclusion of the court for issue 1: It is reliability that is the issue, not the quantity, though plainly the quantity is relevant (as has been made clear) to the consideration of stochastic effects. Para 28. Issue 2: Should the judge have made the order for a preparatory hearing? Should he in any event have made it after he had given his ruling? (1) Should the judge have ordered a preparatory hearing? Adducing section 29(2)(a) the judge said “it was difficult to think of anything more material to the jury's determinations and findings than "this highly complex forensic scientific evidence based, as it is, upon biochemistry, something which neither the court nor jurors may be expected to be experts in.” Reference made to the Criminal Procedure & Investigations Act (CPIA) (2) Should the judge have ordered the hearing ex post facto? Para 37. the whole hearing has to be far more sharply focussed than this hearing was. Issue 3: What procedure should have been followed in the light of the objection to admissibility raised by the appellant? |