Comments on MATH10222/11222 Exam Section A

A1  i) A full range of answers - from extremely good to extremely bad.
    ii) Most drew this well but failed to discuss how the plot of the solution curves relates to the existence and uniqueness results from part (i)
    iii) Mostly done very well although a few forgot to use the initial conditions

A2  Mostly very well done.

A3  Many fell for the cosh 'trick' as they didn’t realise that \( y_p = C \cosh(x) + D \) wouldn’t work as \( \cosh(x) = \frac{1}{2}(\exp(x) + \exp(-x)) \).

A4  Well done by many; however, many students failed to expand the initial conditions correctly or forgot about the homogeneous solution of \( x_1 \).

A5  Well attempted - many students knew what they needed to do but made mistakes when using the hint or when applying the ICs.