Examination report – December 2011 series

Paper no 2730-027 Advanced Mathematics 2

Section 1 – Areas of good performance (question no/syllabus topic or reference)
Syllabus section: 1.13, 1.14, 1.16, 1.17 - (b) Sum of GP was reasonably understood by some candidates. Syllabus section: 1.18, 1.21 - Parts of complex numbers were reasonably well attempted by most candidates Syllabus section: 1.22, 1.23 - Some aspects of partial fractions were understood well by some candidates. Syllabus section: 1.37, 1.38, 1.41, 1.43 - Some aspects of Laplace transforms and inverse Laplace transforms were understood by candidates. Syllabus section: 1.27, 1.28, 1.30 - Generally, manipulation of matrices was understood well by most candidates Syllabus section: 1.24, 1.25, 1.32, 1.33, 1.34 - Most candidates gained some marks for their understanding of Cramer's rule and matrices Syllabus section: 1.24, 1.34, 1.38 - Most candidates gained some marks for their understanding of Laplace transforms and inverse of a matrix

Section 2 – Areas for development (question no/syllabus topic or reference)
Syllabus section: 1.6. 1.8 - (a) Integration by algebraic substitution poorly attempted by candidates. (b) Integration by parts partly attempted by candidates. Syllabus section: 1.5, 1.10, 1.11 - (a) Simpson's rule very poorly attempted by most candidates (b) Maclaurin's series was not well attempted by most candidates. Syllabus section: 1.13, 1.14, 1.16, 1.17 - (a) Binomial series was poorly attempted by most candidates (c) Sum to infinity not well attempted by most candidates. Syllabus section: 1.43, 1.44, 1.45, 1.46 - Solving a differential equation using Laplace transforms was poorly attempted