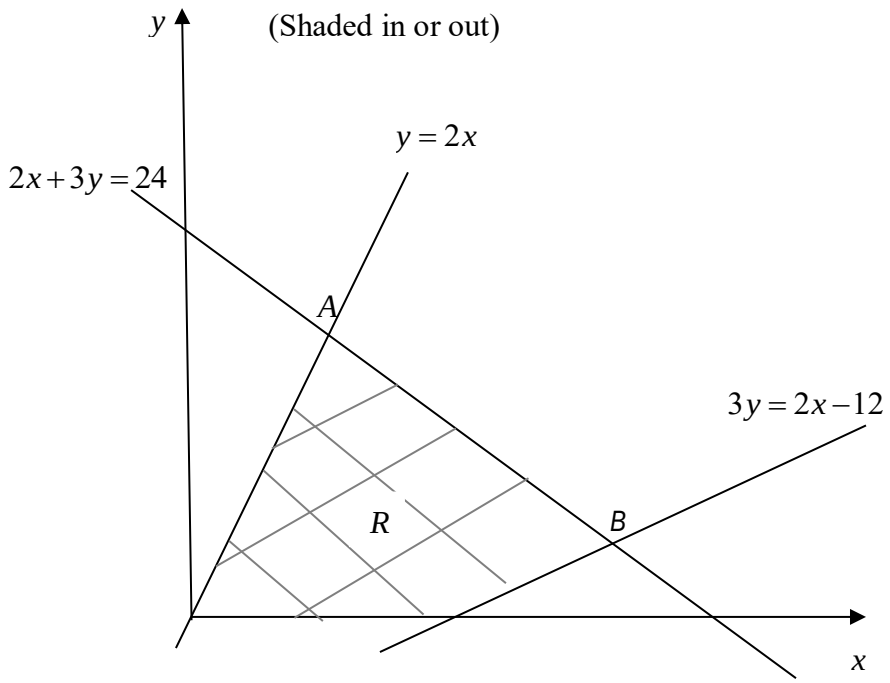
Question number	Scheme	Marks
5 (a)	$2x+3y=24,\quad y=2x,\quad 3y=2x-12$	M1 A1A1 [3]
(b)		B1 [1]
(c)	Greatest value of F is at A, intersection of lines $y=2x$ and $2x+3y=24$ Greatest value of F is at (3, 6) Greatest value of $F = 2\times3+5\times6=36$	M1 A1 A1ft [3]
		Total 7 marks

(a)	M1	Attempt to find two points on any one of the straight lines. Look for two correct points (stated, plotted or implied by a correct line), or for any incorrect point from working which shows an appropriate substitution of one variable with an attempt to solve for the second variable.
	A1	For any two correct lines.
	A1	For three correct lines.
(b)	B1	Correct region, identified by shading in or outside the region. Label R is not required but it needs to be correct if it is shown.
(c)	M1	Identify A as the point with coordinates that give the greatest value of F, or find the value of F at A and B, ft their graph, or draw line $2x+5y=k$ for at least one value of k.
	A1	Correct coordinates (3, 6) for the point identified to give the greatest value of F. May be read from graph or implied by working.
	A1ft	(F =) 36 ft their coordinates for A. Note that this mark is shown as B1 on ePEN.