Question Number	Scheme	Marks
3.(a)	$M(D),\ (150g\times1)+(60g\times2.5)=Tc\times4$	M1 A1
	$Tc=75g$ or 735 N or 740 N Allow omission of N	A1 (3)
(b)	$M(B),\ (150g\times4.5)+(60g\times6)=T_D\times3.5$	M1 A2
	$T_D=2900$ N or $\frac{2070g}{7}$ Allow omission of N	A1 (4)
		(7)
	Notes for Qu 3	
	3(a) M1 for a complete method to find Tc (M0 if they assume $T_C=T_D$) i.e. for producing an equation in Tc only. Each equation used must have correct no. of terms and be dimensionally correct. First A1 for correct equation. Second A1 for any of the 3 possible answers Other possible equations: $(\uparrow),Tc+T_D=60g+150g$ $M(A),\ (150g\times4.5)+(60g\times3)=(Tc\times1.5)+(T_D\times5.5)$ $M(C),\ (150g\times3)+(60g\times1.5)=T_D\times4$ $M(B),\ (150g\times4.5)+(60g\times6)=(Tc\times7.5)+(T_D\times3.5)$ $M(G),\ (T_D\times1)+(60g\times1.5)=T_C\times3$	
	3(b) **N.B.** (M0 if T_C is never equated to 0) M1 for a complete method to obtain an equation in T_D only. If they use more than one equation, each equation used must have correct no. of terms and be dimensionally correct. First and second A1 for a correct equation in T_D only. A1A0 if one error.Consistent omission of g is one error except in *M(D)* where it's not an error. Third A1 for either answer Other possible equations: $(\uparrow),T_D=60g+150g+Mg$ $M(A),\ (150g\times4.5)+(60g\times3)+9Mg=T_D\times5.5$ $M(C),\ (150g\times3)+(60g\times1.5)+7.5Mg=T_D\times4$ $M(D),\ (150g\times1)+(60g\times2.5)=3.5Mg$ $M(G),\ (T_D\times1)+(60g\times1.5)=4.5Mg$	