PERCENTAGE COMPOSITION (MASS)

Question One: Calculate the percentage composition of the molecule 1-aminobutane. 1-aminobutane has the formula $C_4H_{11}N$.
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(N) = 14.0 g mol^{-1}

Question Two: Calculate the percentage composition of the malonic acid molecule. Malonic acid has the formula $C_3H_4O_4$
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(O) = 16.0 g mol^{-1}

Question Three: Calculate the percentage composition of the sebacic acid molecule. Sebacic acid has the formula $C_{10}H_{18}O_4$
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(O) = 16.0 g mol^{-1}

Question Four: Calculate the percentage composition of the putrescine molecule. Putrescine has the formula $C_4H_{12}N_2$
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(N) = 14.0 g mol^{-1}

Question Five: Calculate the percentage composition of the compound Na_2CO_3
M(C) = 12.0 g mol^{-1}, M(Na) = 23.0 g mol^{-1} and M(O) = 16.0 g mol^{-1}

Question Six: Calculate the percentage composition of the compound propanone. Propanone has the formula C_3H_6O.
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(O) = 16.0 g mol^{-1}

Question Seven: Calculate the percentage composition of 3-chloropropene.
3-chloropropene has the formula C_3H_5Cl
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(Cl) = 35.5 g mol^{-1}

Question Eight: Calculate the percentage composition of the aspirin molecule. Aspirin has the formula $C_9H_8O_4$
M(C) = 12.0 g mol^{-1}, M(H) = 1.00 g mol^{-1} and M(O) = 16.0 g mol^{-1}

Question Nine: Calculate the percentage composition of benzyl chloride.
Benzyl chloride has the formula C_7H_7Cl M(C) = 12.0 g mol^{-1},
M(H) = 1.00 g mol^{-1} , M(Cl) = 35.5 g mol^{-1}

Question Ten: Calculate the percentage composition of paracetamol.
Paracetamol has the formula $C_8H_9O_2N$
M(C) = 12.0 g mol^{-1}, M(H) = 1.0 g mol^{-1}, M(O) = 16.0 g mol^{-1},
M(N) = 14.0 g mol^{-1}

ANSWERS

Q1	%C = 65.8%	%H = 15.1%	%N = 19.2%	
Q2	%C = 34.6%	%H = 3.85%	%O = 61.5%	
Q3	%C = 59.4%	%H = 8.91%	%O = 31.7%	
Q4	%C = 54.5%	%H = 13.6%	%N = 31.8%	
Q5	%C = 11.3%	%Na = 43.4%	%O = 45.3%	
Q6	%C = 62.1%	%H = 10.3%	%O = 27.6%	
Q7	%C = 47.1%	%H = 6.54%	%Cl =46.4%	
Q8	%C = 60.0%	%H = 4.44%	%O = 35.6%	
Q9	%C = 66.4%	%H = 5.53%	%O = 28.1%	
Q10	%C = 63.6%	%H = 5.96%	%O = 21.2%	%N = 9.27%