Sample Paper 3: Paper 2

Question 1 (25 marks)

Question 1 (a)

58	3	4	8						
59	0	0	2	3	7	8	8		
60	0	2	4	5	$\boxed{\mathbf{7}}$	9			
61	1	3	3	5	6	6	8	8	9
62	0	1	3	4					

Key: 61|1 means 61.1 kg

There are 29 students. Arrange the weights in order. The median weight is now the weight of the middle student. This is the weight of the 15th. student.
Median weight = 60.7 kg

Question 1 (b)

Range R = 62.4 – 58.3 = 4.1 kg

58	**3**	4	8						
59	0	0	2	3	7	8	8		
60	0	2	4	5	$\boxed{7}$	9			
61	1	3	3	5	6	6	8	8	9
62	0	1	3	**4**					

Question 1 (c)

58	3	4	8						
59	0	0	2	$\boxed{\mathbf{3}}$	$\boxed{\mathbf{7}}$	8	8		
60	0	2	4	5	$\boxed{7}$	9			
61	1	3	3	5	6	$\boxed{\mathbf{6}}$	$\boxed{\mathbf{8}}$	8	9
62	0	1	3	4					

First quartile $Q_1 = \dfrac{59.3 + 59.7}{2} = 59.5$ kg

Third quartile $Q_3 = \dfrac{61.6 + 61.8}{2} = 61.7$ kg

Interquartile range = $Q_3 - Q_1$ = 61.7 kg – 59.5 kg = 2.2 kg

Question 1 (d)

(i) The data is univariate as the only variable is weight.
(ii) The data is continuous as weight can be measured to any decimal place.