Question 5 – 4:

5(a)(i)	$20 < t \leqslant 35$	**1**	

5(a)(ii)	28 nfww	**4**	**M1** for midpoints **soi** **M1** for use of $\sum fm$ with m in correct interval including both boundaries **M1** (dep on 2nd M1) for $\sum fm \div 80$
5(b)(i)	$\frac{7}{8}$ cao	**2**	**M1** for $\frac{18+28+24}{80}$ oe
5(b)(ii)	$\frac{25}{126}$ oe	**3**	**M2** for $[2\times]\left(\frac{3}{28}\times\frac{25}{27}\right)$ or $[2\times]\left(\frac{25}{28}\times\frac{3}{27}\right)$ oe or **M1** for either $\frac{3}{28}$ or $\frac{25}{27}$ or $\frac{25}{28}$ or $\frac{3}{27}$ If 0 scored, **SC1** for answer $\frac{75}{392}$ oe
5(c)(i)	28 and 56	**1**	
5(c)(ii)	Correct diagram	**3**	**B1FT** *their* **(c)(i)** for plots at 5 correct heights **B1** for 5 plots at upper ends of intervals on correct vertical line **B1FT** (dep on at least B1) for increasing curve or polygon through 5 points After 0 scored, **SC1FT** for 4 correct points plotted
5(c)(iii)	Strict FT *their* reading at 80th percentile for an increasing curve/polygon	**2**	**B1** for 64 written or a mark at cf = 64 on graph or a mark on curve at $(t, 64)$

5(c)(iv)	Correct integer reading at $t = 45$	**M1**	**FT** *their* cf graph for all three marks
	$\frac{80-(\textit{their}\text{ reading at } t=45)}{80}$ [× 100] or $\frac{(\textit{their}\text{ reading at } t=45)}{80}\times 100$	**M1**	
	Percentage consistent with *their* reading	**A1**	If no working shown then SC1 for a correct percentage that follows from a correct reading from *their* graph.