(12) (a) $f(5-x)$

$$= \frac{1}{\sqrt{5-x}}$$

(b) Undefined when:

$$5 - x \leq 0$$

$$-x \leq -5$$

$$x \geq 5$$

Question			Generic scheme	Illustrative scheme	Max mark
12.	(a)		•1 interpret notation •2 state expression for $f\left(g\left(x\right)\right)$	•1 $f\left(5-x\right)$ or $\frac{1}{\sqrt{g\left(x\right)}}$ •2 $\frac{1}{\sqrt{5-x}}$	**2**
Notes:					
1. For $\frac{1}{\sqrt{5-x}}$ without working, award both •1 and •2.					
Commonly Observed Responses:					
Candidate A $5-\frac{1}{\sqrt{x}}$ •1 ✗ •2 ✓ 1					
	(b)		•3 state range	•3 $x \geq 5$	**1**
Notes:					
2. Answer at •3 must be consistent with expression at •2. 3. For candidates who interpret $g\left(f\left(x\right)\right)$ as $f\left(g\left(x\right)\right)$, do not award •3.					
Commonly Observed Responses:					
Candidate B $5-\frac{1}{\sqrt{x}}$ •1 ✗ •2 ✓ 1 $x \leq 0$ •3 ✗					