

Question number	Answer	Notes	Marks
2 (a)	B - light;		1
(b) (i)	(signal has) two values;	accept <ul style="list-style-type: none"> • on or off • 0 and 9 • 0 and 1 • 1 and 9 • two signal strengths/states • binary • it is a square wave(form) ignore <ul style="list-style-type: none"> • all at 9 • up and down • true and false 	1
(ii)	any two of:	ignore references to analogue signals	2
	MP1. (idea of) increasing the bit rate / sending more bits in the same time;	allow more bits / pulses per second condone increase frequency	
	MP2. (idea of) an additional level / strength;	allow a named extra level e.g. 'use 4.5 as well'	
	MP3. (idea of) increased bandwidth / range of transmission frequencies;	allow wider bandwidth ignore 'broadband'	
	MP4. (idea of) multiplexing;	allow use more than one channel condone add extra signals	
	MP5. (idea of) quantisation (algorithm);	allow compression of data	

Total 4 marks