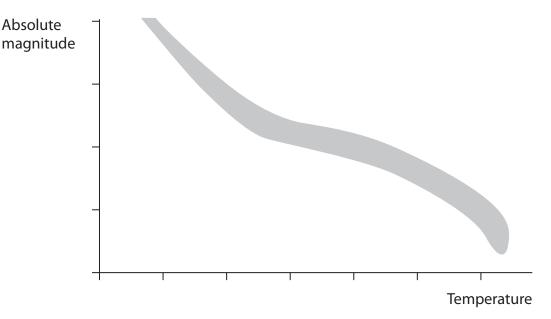
## **Answer ALL questions.**

1 (a) This is an incomplete Hertzsprung-Russell diagram.



(i) Which of these is in the shaded area of the diagram?

(1)

- A black holes
- B main sequence stars
- C neutron stars
- **D** protostars
  - (ii) On the diagram, draw the area to show the position of white dwarf stars.

    Label this area WD.

(1)

(iii) On the diagram, draw the area to show the position of red giant stars.

Label this area RG.

(1)

(iv) State what is meant by the term **absolute magnitude**.

(2)

(b) The Sun emits various parts of the electromagnetic spectrum.				
			ich part of the electromagnetic spectrum causes damage to human face skin cells?	(1)
	×	Α	microwaves	
	×	В	radio waves	
	$\times$	C	ultraviolet	
	X	D	visible light	
	(ii) \	Wh	ich of these increases the risk of damage to human surface skin cells?	(1)
	$\times$	Α	sunbathing	
	X	В	using protective sun cream	
	$\mathbf{X}$	C	very cloudy weather	
	×	D	wearing sunglasses	

(Total for Question 1 = 7 marks)