Question number		Answer	Notes	Marks
4	(a)	one mark for each correct tick;;;; **Stage of evolution** / **Features in the life cycle of the Sun** black hole main sequence ✓ nebula ✓ neutron star red giant ✓ red supergiant supernova white dwarf ✓	if 5 or more ticks given then -1 for each additional tick	4
	(b)	idea of the temperatures being different; Sun is hotter than Betelgeuse;	 also scores first mark allow RA	2
	(c) (i)	idea that there are no particles in space (between Sun and Earth);	allow space is a vacuum	1
	(ii)	shiny / white / silver; poor absorber of (IR) radiation;	 accept good reflector of radiation accept 'does not absorb' ignore references to emission ignore references to conduction allow 'heat' or 'energy' for 'radiation'	2

Total for Question 4 = 9 marks