Question number	Answer	Notes	Marks
1	environment; population; community; quadrat; random / different; average / mean; reliability; anomalous / unusual / odd ;		8

Total 8 marks

Question number	Answer	Notes	Marks
2(a) (i)	A combustion / burning / eq; B respiration; C photosynthesis; D death / decay / decomposition / rotting / eq; E respiration;		5
(ii)	C;		1
(b)	1. global warming / earth warms / atmosphere heats up / temperature rises / traps heat / eq; 2. ice caps melt / eq; 3. flooding / rise in sea level; 4. climate change / extreme weather / hurricanes / drought / eq; 5. <u>habitat</u> destruction / desertification / eq; 6. extinction / disruption of food chains / loss of species; 7. migration / distribution of organisms / distribution of pests / spread of disease / affects plant growth;	Mp6 ignore death of organisms	4 max

(c)	1. burn less fossil fuels / drive less cars / use hybrid cars / use public transport / cycling / low energy light bulbs / eq; 2. plant more trees / reduce deforestation; 3. use renewable energy / wind / solar / wave / nuclear / eq; 4. reduce cattle farming / fewer paddy fields / less aerosols / eq;	Ignore catalytic converters	2 max

Total 12 marks

Question number	Answer	Marks
3 (a) (i)	oxygen; respiration / energy; active uptake;	Max 2
(ii)	no light / keep dark; roots; (no) photosynthesis; (growth) water plants / algae;	Max 2
(b) (i)	any answer in the range 105 to 125; any answer in the range 80 to 95;	2
(ii)	repeat / eq;	1
(iii)	temperature; light; carbon dioxide; humidity; volume of solution / liquid; Ignore water ion concentration;	Max 2
(c)	(nitrates) soluble / dissolve; rain / water / run off; leaching / leached; algal growth / plant growth / algal bloom / eq; block light / sun / eq; plants die / less photosynthesis / eq; less oxygen / anoxic / eq; bacteria / fungi; decomposers / decomposition / rot / decay / eq; respiration; fish / animals die; eutrophication;	Max 6

Total 15 Marks