Question number	Answer	Notes	Marks
1	fossil; sulfur dioxide / nitrogen oxide / nitrogen dioxide; acid rain / sulphuric acid / nitric acid; carbon monoxide; haemoglobin; oxygen / O_2; global warming; greenhouse; methane / CH_4; CFCs / CFC's / CFC / chlorofluorocarbons / chlorinated fluorocarbons;		10

Question number	Answer	Notes	Marks
2(a)	1. ot r pollutants / nitrate / sediment in lake / eq; 2. only done once / reliability / different part of lake may vary / eq; 3. dif rent sized disks may have been used; 4. fferent light conditions / time of day / time of year / weather / ripples / eq; 5. dif rent people / different eyesight / poor vision / eq;	Ignore plants in lake / microorganisms Ignore human error	2 max
(b)(i)	1. as vel of phosphate increases Secchi depth / visibility decreases / eq; 2. reference to Secchi depth levelling from 1990 / 5.0m / phosphate 140-142 onwards;	Allow 1993 / 4.5m / 155-157	2
(ii)	1. al e growth / plant growth / algal bloom / eq; 2. b ck light / eq; 3. pl t death / no photosynthesis; 4. cteria / microbes / decomposers / microorganisms / eq; 5. ss oxygen / anoxic / eq; 6. spiration;	phosphate makes the water cloudy so no light can get through to plants = 1 Ignore eutrophication	5 max
(c)(i)	22;		1
(ii)	October;		1

Question number	Answer	Notes	Marks
(d)(i)	depth is 0.5 / depth is less than 1.0 / less than minimum depth / disk not seen below 1.0m / eq;	allow idea of 'above' if clearly writing about nearer surface	1
(ii)	only one below 1.0 / second reading above 1.0 / result not repeated / could be an anomaly / some other months only had one reading / not enough readings made / eq;	Ignore only one reading made Ignore comments about change to turbidity / sand being disturbed Ignore human error	1

Total 13 marks

Question number	Answer	Notes	Marks
3 (a) (i)	deer;		1
(ii)	python;		1
(b) (i)	1. hear/listen to prey/predators / eq; 2. eat loss;	hear sound = 0	1
(ii)	camouflage / hide from prey/predators / eq;	ignore to keep warm	1
(iii)	see prey/predators/further / appear bigger / reach branches / climb trees / eq;	see alone = 0 ignore ideas about faster movement	1
(c)	1. idea of more carbon dioxide + less oxygen; 2. less) photosynthesis;	ignore carbon dioxide is not changed into oxygen	2

(Total for Question = 7 marks)

Question number	Answer	Notes	Marks
4	dioxide; acid; carbon; haemoglobin; carbon dioxide / water vapour; fossil; methane; greenhouse; global warming; habitat;	ignore climate change	10
		Total	**10**

Question number	Answer		Notes	Marks
5	C	different light periods / eq;	allow in light and in dark ignore different light intensities	Max 6
	O	same species / same variety / age / eq;	allow flowers as eq to plants	
	R	repeat / eq;		
	M1	time to produce flowers / number of flowers produced / how long to produce flowers / eq;		
	M2	days / weeks / months / use watch / clock / eq;		
	S1+S2	same temperature / light <u>intensity</u> / CO_2 / water/ humidity / minerals / nutrients / soil / pH / eq;;		
			Total	**6**