Question number	Answer	Notes	Marks
1 (a)	low in fat / eq; heart disease / blocks blood vessels / eq; high in protein / amino acids; growth / repair / eq; ignore muscles		2
(b)	conserves snail / natural populations / less collected / eq;		1
(c)	spider(s);		1
(d)	calcium / phosphate;	allow if in list with other ions	1
(e) (i)	cannot digest/breakdown cellulose / fibre / roughage; no absorption of cellulose / fibre / roughage; lack enzyme / cellulase; lack symbiotic organisms;	ignore converse	max 2
(ii)	70;; one for 2.8 in working		2

(f)	(more) (glucose) metabolism / (more) respiration; heat loss / need to maintain body temperature / keep warm / eq; more active / more movement;	ignore energy use / energy loss allow converse for snails allow converse for snails allow converse for snails	2
(g)	humans + (select) desired characteristics (for breeding) / eq;	allow human terms such as you / we / farmers	1
(h)	(no) bacteria / microorganism / fungi / pathogen / infection / disease / parasites / eq;	ignore germs	1

TOTAL 13 MARKS

Question number	Answer	Notes	Marks
2 (a)	(transfer) pollen from anther to stigma;	ignore stamen to carpel/style ignore male to female gamete	1
(b)	1. o make honey / food; 2. sugar(y) / sucrose / glucose / fructose; 3. energy / respiration;	 2. ignore carbohydrate	2
(c)	(can) produce offspring / (can) reproduce / eq;	ignore egg / gamete / babies / children production ignore fertilisation	1
(d)	1. utation; 2. (different) allele / different version of a gene / DNA / genetically different / eq; 3. resistant / resistance; 4. idea of survival; eg not all die from disease	 2. ignore different gene 3. ignore immune	2
(e)	16;		1

Question number	Answer	Notes	Marks
(f)	1. he number of drones the queen mates with / queen may mate with different drones; 2. each drone has a different set of alleles / is genetically different; 3. (queen's eggs made by) meiosis / have different alleles / eq;	ignore bees ignore mutation ignore genes	2
(g)	1. disease resistant; 2. large quantity of honey / beeswax ; 3. ability to collect nectar; 4. fecundity / more bees / eq; 5. less aggressive / eq;	1. ignore immune / combat disease / live longer / hardier 2. ignore taste / flavour / quality of honey	2

(Total for Question = 11 marks)