

Level of Organisation

Mark Scheme 2

Level	IGCSE(9-1)
Subject	Biology
Exam Board	Edexcel IGCSE
Module	Single Award (Paper 2B)
Topic	Structure and Functions in Living Organisms
Sub-Topic	Level of Organisation
Booklet	Mark Scheme 2

Time Allowed: 27 minutes

Score: /22

Percentage: /100

Grade Boundaries:

9	8	7	6	5	4	3	2	1
>90%	80%	70%	60%	50%	40%	30%	20%	10%

Question number	Answer	Notes	Marks
1 (a)	cell membrane; cytoplasm; plasmid; nucleoid / chromosome / DNA once;	reject nucleus / nucleolus ignore vacuole / ribosomes / mitochondria	3
(b) (i)	enzymes; <u>optimum</u> ; denatured / destroyed / eq;	ignore references to low pH and high pH	2
(ii)	amino acids; protein / DNA;		2
(iii)	active transport / active uptake; low to high conc. / against conc. gradient / eq; respiration / energy / ATP; root <u>hair</u> (cells); large surface area / eq;		3
(c) (i)	X at 100;	allow any indication at 100	1
(ii)	11.1%;; allow one mark for 8000 or 7200 or 800 in working		2
(iii)	nitrate (already) in soil / <u>nitrogen fixing</u> bacteria / nitrification / organic material in soil / eq;		1
		Total	15

Question number	Answer	Notes	Marks
2 (a)	A lens; B cornea; C retina;	A. allow lense C. ignore rods/cones/receptors/fovea	3
(b) (i)	same/similar cells / cells with the same function / all muscle <u>cells</u> / eq;	ignore group of cells alone allow group of cells working together	1
(ii)	1. radial muscles contract / circular muscles relax; 2. <u>pupil</u> dilates / widens / gets bigger / <u>iris</u> gets smaller / eq; 3. more light can enter;		3

(Total for Question = 7 marks)