Question number	Answer	Mark
1(a)(i)	D	(1)

Question number	Answer	Mark
1(a)(ii)	C	(1)

Question number	Answer	Mark
1(a)(iii)	cerebrum	(1)

Question number	Answer	Mark
1(b)	An explanation that makes reference to: identification – knowledge (1 mark) and reasoning /justification – knowledge (1 mark): • embryonic stem cells can be stimulated to produce cells of the retina (1) • which can be transplanted into a patient's eye to replace the damaged cells (1)	(2)

Question number	Answer	Mark
1(c)	Any **three** improvements from the following: • vary the time for computer usage (1) • the activity used on the computer must be the same for each person (1) • control the intake of food/drink/drugs before and during the test (1) • repeat the test at different times of the day (1) • repeat the test using more people (1)	(3)

Question number	Answer	Additional guidance	Mark
1(d)(i)	• $\frac{0.258+0.685+0.236+0.246+0.268}{5}$ = 0.339 (1) • 339 (ms) (1)	award full marks for correct numerical answer without working	(2)

Question number	Answer	Mark
1(d)(ii)	• it is the median value	(1)

Question Number	Answer	Mark
Q02(a)i	structure A – dendron / dendrite structure B – nucleus answers must be in the correct order	**(2)**

Question Number	Answer	Acceptable answers	Mark
2(a)(ii)	**B** ☒ electrical impulses		**(1)**

Question Number	Answer	Acceptable answers	Mark
2(a)(iii)	A description to include: **insulates** the (electrical) impulse / **insulates** the {axon / neurone} (from surrounding tissue) (1) allows quicker (electrical) conductance (1)	accept: speeds up transmission / sends {impulses / signals} faster ignore references to protection of the axon ignore reference to messages	**(2)**

Question Number	Answer	Mark
Q02aiv	synapse(s) / synaptic cleft / synaptic gap	**(1)**

Question Number	Answer	Acceptable answers	Mark
2(b)	A description linking four of the following {receptor} detects a stimulus (1) sensory neurone passes (impulse)to {relay neurone / spinal cord / CNS} (1) relay neurone in spinal cord /CNS (1) relay neurone passes (impulse) onto motor neurone (1) motor neurone passes (impulse) to {effector / muscle /gland} (1) {effector / muscle /gland} initiates response (1)	accept sensory neurone to motor neurone for 1 mark	**(4)**

Total for question 2 = 10 marks