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A2 Biology OCR

Unit F215: Control, genomes and environment

Module 4.3 Animal behaviour

Answers

1

innate/instinctive/stereotypic;
 inherited/genetic/inborn;
 does not require, learning/conscious thought;
 AVP; e.g. reflex

3 max

searches for breast/bottle/AW;
 max

4

[4]

2

(i) red light;

1

(ii) arm withdrawn (without a shock);

1

[2]

3

1 rat, investigates cage / tries to escape;
 2 presses lever by chance;
 3 food / reward, appears;
 4 ref to (positive) reinforcement;
 5 ref to repetition;
 6 associative learning;
 7 AVP; e.g. trial and error
 max

3

[3]

4

ref. faster / rapid / AW ;
 AVP ; e.g. survival
 max

1

[1]

5

(a) (i) *automatic*
 requires no (conscious) thought / AW;

(ii) *stereotyped*
 carried out by all individuals in a species / always carried out in
 same way / AW;

(iii) *conditioned*
 (response) can be, modified / produced, following exposure to 'new'
 stimulus / AW;

3

- (b) **A** any response, provided correct stimulus is given;
R non-mammalian example **R** examples of conditioned reflexes 1
- (c) **D1** time spent in box decreases as number of trials increases / AW;
D2 greatest change in response occurs in first few trials;
D3 little / less, change in response time;
D4 between trials 6 and 20;
D5 ref to supporting paired data;
D6 ref to 'fluctuations'; *max 4*
- E1** (at first) cat pulls, loop accidentally / AW;
E2 ref to trial and error;
E3 freedom is a, reward / reinforcer;
E4 associative learning;
E5 detail (of associative learning);
E6 pulls loop sooner / AW;
E7 correct ref to acclimatisation period
(when cat placed in box) / AW;
E8 AVP; e.g. other behaviours / inactivity, not,
reinforced / rewarded *max 5*
- max 7
- QWC – legible text with accurate spelling, punctuation and grammar;** 1
- (d) no reward / punishment (of behaviour), in classical; ora
one stimulus in operant / two stimuli in classical;
AVP; max 2

[14]