CALIFORNIA BIOLOGY · UNIT 4 · 10 QUESTIONS

Biological Evolution: Unity and Diversity — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1

Stabilising selection favours

A Only males

B Only new mutations

C Intermediate phenotypes

D Extreme phenotypes

Understand It with Pulse

Flag a mistake

2 **Directional selection shifts a population toward**

A No change

B One extreme phenotype

C Extinction always

D Both extremes

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3 **Disruptive selection favours**

A Only heterozygotes

B Intermediate phenotypes

C No phenotype

D Both extreme phenotypes over intermediates

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4 **Sexual selection can favour traits that help an organism**

A Avoid all competition

B Find food only

C Survive predators only

D Attract mates and reproduce

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5 **A population in Hardy Weinberg equilibrium is not evolving, which requires no mutation, no selection, no gene flow, random mating, and a**

A Very large population

B Single genotype

C Changing environment

D Very small population

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6 **If $q^2 = 0.04$ in a population , the frequency of the recessive phenotype is**

A 0.96

B 0.4

C 0.04

D 0.2

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7 **If p = 0.9 and q = 0.1 , the expected frequency of homozygous recessive individuals , q^2 , is**

ANSWER _____

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8 **Two populations become reproductively isolated when they can no longer**

A Live together

B Share food

C Migrate

D Interbreed successfully

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9 **Adaptive radiation occurs when one ancestral species gives rise to many species adapted to**

A The same niche

B No habitat

C Different niches

D One habitat only

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10 **A population of 400 plants has 100 plants showing a recessive trait q^2 is 0.25 , so the frequency of heterozygotes , 2pq , is**

ANSWER

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ANSWER KEY

1.	C	**5.**	A	**9.**	C
2.	B	**6.**	C	**10.**	0.5
3.	D	**7.**	0.01		
4.	D	**8.**	D		

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