**Review Worksheet: Changes to Allele Frequencies in Gene Pools**

**Name: ……………………………………………………………..**

*Do these questions, using your learning resources. Look at the “marks” to give you an idea of the level of detail required in the response (formative only – does not count towards your grade). At the end, mark your work, correct it, and fill in the reflection section. Questions marked \* require you to use reasoning, inferring and application of knowledge, or perhaps extra research to get the answer. It won’t be right there in the text.*

1: List the three main ways that allele frequency can change within gene pools:

(3 marks)

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2: Define ‘gene flow’

(3 marks)

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3: The allele for the Type B blood group is believed to have arisen in East Asia. Frequency of the B group allele is highest there. There are people in Europe who carry the Type B allele, but the frequency is lower. Explain how the Type B allele came to be present in the European population.

(5 marks)

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4: What are barriers to gene flow?

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5: Why are geographical barriers to gene flow less of a consideration for humans today?

(2 marks)

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6: What are the disadvantages of barriers to gene flow?

(3 marks)

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7: What is an advantage of barriers to gene flow?

(1 mark)

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8: What is genetic drift?

(2 marks)

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9: Explain how the random nature of reproduction may result in increases and decreases in allele frequency due to chance.

(6 marks)

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10: Explain how the ‘Dunker’ population in the USA provides evidence for genetic drift.

(10 marks)

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11: What is the Founder Effect?

(4 marks)

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12: Give an example of the Founder Effect.

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13: Describe the Bottleneck Effect and give an example.

(15 marks)

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14: a) When an inhibitory neurotransmitter binds to the post-synaptic

receptors, what happens?

(6 marks)

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b) What does this mean for the speed of transmission?

(1 mark)

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Go back and mark your work using the marking key provided. What score did you get? /72

*I included enough detail in my answers.*



*I was able to find information in the text/powerpoint presentation.*

*I was able to reason and infer where the information wasn’t directly in the text (questions with \*).*

*I marked my work and wrote down any answers where I missed marks.*