Year 11 Protein Synthesis Validation

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ /40

1. The process by which messenger RNA (mRNA) is produced is called:

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2. The process in which transfer RNA brings amino acids to the ribosome is called:

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3. Identify the similarities and differences between DNA and mRNA.

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4. How many amino acids does the following mRNA strand code for: (1 mark)

**AUGCCGAUUGCGACGUAGGCUAGC**

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5. Define the difference between the template and coding strand.

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6. What are the two (2) main functions of RNA polymerase?

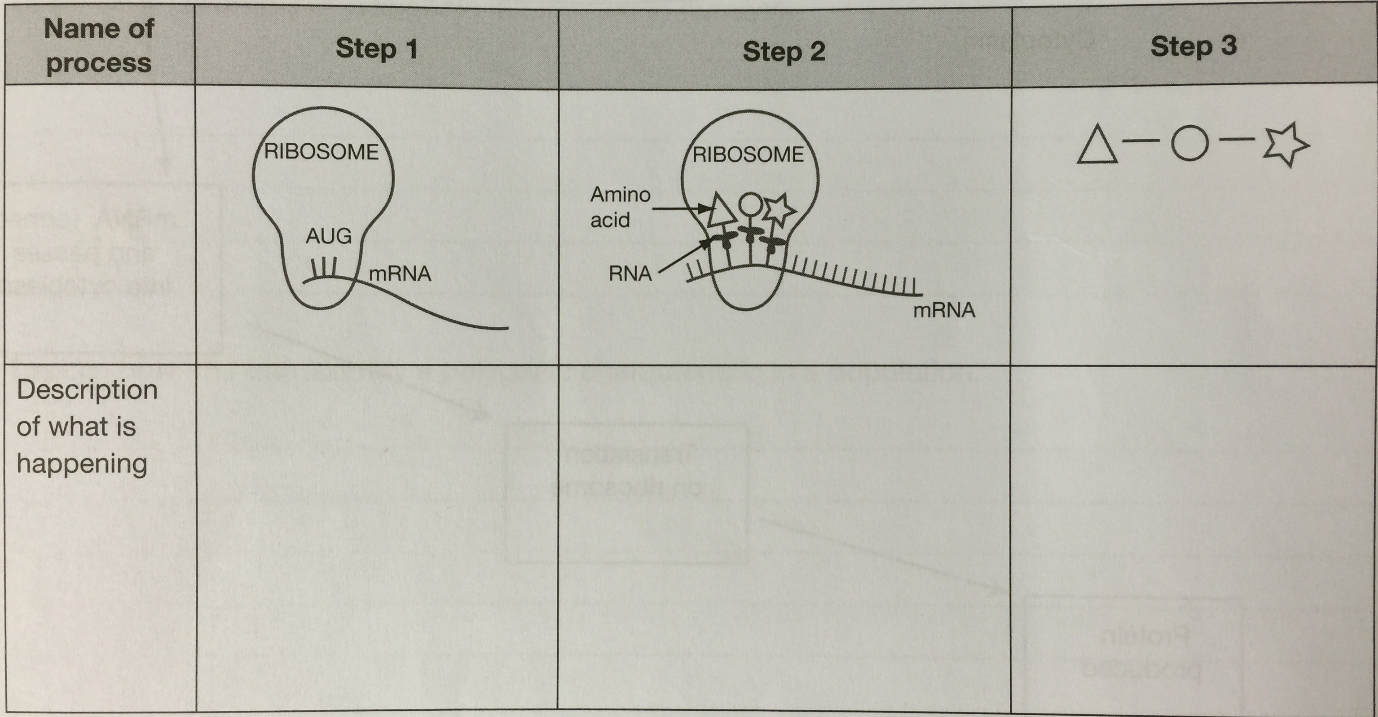
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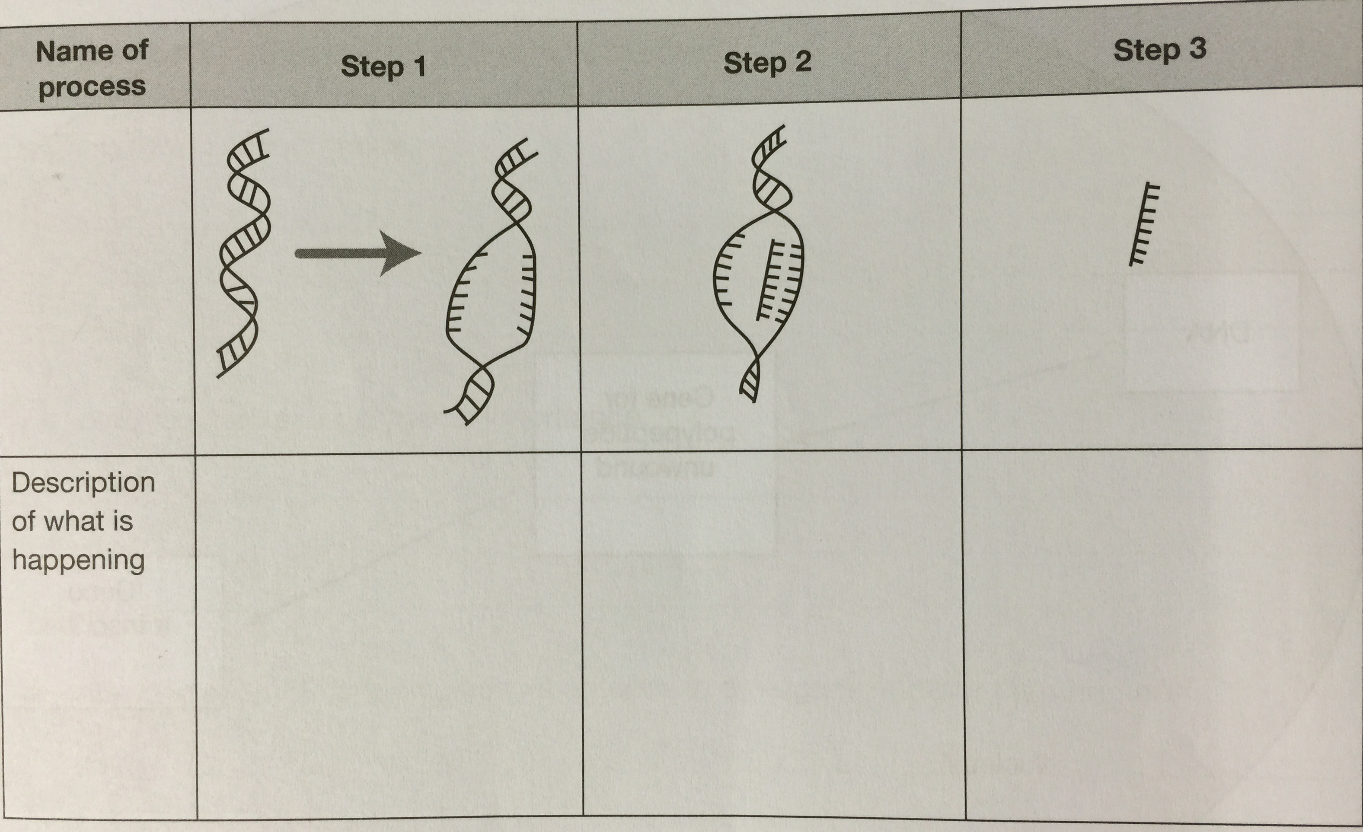
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7. Fill in the following table. (7 marks)



8. Fill in the following table. (7 marks)



9. Define the following terms in relation to protein synthesis.

Promoter Gene:

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Regulator Gene:

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Structural Gene:

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Anti-codon:

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Codon:

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(5 marks)

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**EXTENDED ANSWER**

9. Describe the process of RNA splicing. (9 marks)

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