



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



SOLUTIONS – 40

Class: XII

Sub: Biological Science

Date: 22.08.2020

Topic: Ch 6 (part 9) Protein Synthesis – Machinery of Translation and Initiation

F.M. : 15

Choose the correct option:

(1x15=15)

1. The process of formation of a polypeptide from mRNA molecule is called :
a) Transcription b) Translation c) Reverse transcription d) post transcriptional changes
Answer: Translation (b)
2. ----- act as the protein factories during translation.
a) Mitochondria b) Nucleus c) Ribosomes d) all of these
Answer: Ribosomes (c)
3. ----- acts as an adaptor molecule to carry amino acids.
a) mRNA b) tRNA c) rRNA d) DNA
Answer: tRNA (b)
4. The raw material for translation is:
a) Ribonucleotides b) amino acids c) deoxyribonucleotides d) none of these
Answer: amino acids (b)
5. In RNA viruses the process of formation of DNA from RNA is called -
a) Transcription b) reverse transcription c) reverse translation d) all of these
Answer: reverse transcription (b)
6. The following is used as the source of energy during translation :
a) ATP b) GTP c) Both ATP and GTP d) CTP
Answer: Both ATP and GTP (c)
7. The process where the t RNA gets loaded with the specific amino acid is called-
a) Loading b) Uploading c) Charging d) All of these
Answer: Charging (c)
8. The enzyme required for the activation of amino acids and charging tRNA is-
a) Pyrophosphate b) ATPase c) amino acyl tRNA synthetase d) Peptidyl transferase
Answer: amino acyl tRNA Synthetase (c)
9. The tRNA molecule without the amino acids is called -
a) Uncharged t RNA b) Mischarged tRNA c) charged tRNA d) none of these
Answer: Uncharged t RNA (a)

10. The process when the small sub unit of ribosome combines with the large sub unit it is called -
a) Dissociation b) assembly c) association d) none of these
Answer: association (c)
11. For association of ribosomes following cofactors is required:
a) Calcium b) Sodium c) Zinc d) Magnesium
Answer: Magnesium (d)
12. A ribosome consists of the following reactive site-
a) P- site b) A- site c) E- site d) all of these
Answer: all of these (d)
13. The initiation factor which identify the location of N-formylmethionine tRNA^{f-met} in the P-site is-
a) IF-1 b) IF-2 c) IF -3 d) IF -4
Answer: IF – 2 (b)
14. The pre- initiation complex of translation consists of -
a)GTP and initiation factors b) mRNA c) 30S sub unit d) all of these
Answer: all of these (d)
15. The ribosomal binding site on the mRNA is the leader nucleotide sequence .It is called-
a) Pribnow box b) Shine – Dalgarno sequence c) Leader sequence d) All of these
Answer: Shine – Dalgarno sequence (b)

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