

BIO 302 Quiz # 02

Collected by Zabi Attariya 🇬🇪

Work Together Team

Question # 1 of 10 (start time: 10:42:51 AM, 26 July 2023)

How many enzymatic steps are required by all aminoacyl-tRNA synthetases to attach an amino acid to a tRNA?

Select the correct option

 Reload Math

☐

1

☒

2

☐

3

☐

4

Click to Save Answer & Move to Next

Question # 2 of 10 (Start time: 10:43:34 AM, 26 July 2023)

In eukaryotes, translation is initiated by binding of ribosomes to the _____

Select the correct option



Relo



Poly A tail



5' cap



3' cap



TATA box



Click to Save Answer & Move

Question # 3 of 10 (Start time: 10:44:41 AM, 26 July 2023)

The exit tunnel in bacterial ribosome is about _____ long

Select the correct option

☐

5-18 Å



80-100 Å



50-80 Å



10-3 Å

Click to Save Answer & Move

Question # 4 of 10 (Start time: 10:45:33 AM, 26 July 2023)

Which enzyme is used to add a formyl group rapidly to the methionine amino group.

Select the correct option



Met-tRNA transformylase



Met-rRNA transformylase



Met-tRNA transformase



Arg-rRNA transformylase



Click to Save Answer &

Question # 5 of 10 (start time: 10:47:06 AM, 26 July 2023)

To

The diameter of exit tunnel of bacterial ribosome is about _____ at its narrow points

Select the correct option

[Reload Math E](#)☐1A^o☐5A^o☒10A^o☐3A^o[Click to Save Answer & Move to Next Q](#)

Question # 6 of 10 (start time: 10:47:42 AM, 26 July 2023)

Total Marks

The transcription machinery and the translation machinery in _____ are located in the same compartment.

Select the correct option



Reload Math Equation



Prokaryotes



Viruses



Eukaryotes



Fungi

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 10:48:33 AM, 26 July 2023)

Tot

New amino acid are added to the _____ of the growing polypeptide chain during protein synthesis.

Select the correct option

 Reload Math E☐

Amino terminus

☐

Positively charged side

☐

Amino terminus or carboxyl terminus

☒

Carboxyl terminus



Click to Save Answer & Move to Next Qu

Question # 8 of 10 (Start time: 10:49:30 AM, 26 July 2023)

During translation proteins are synthesized_____

Select the correct option

☐

by lysosome using the information on DNA

☐

by ribosomes using the information on rRNA

☒

by ribosomes using the information on mRNA

☐

by ribosomes using the information on DNA



Click to Save Answer &

Question # 9 of 10 (**Start time: 10:50:51 AM, 26 July 2023**)

_____ product of the following gene is only found in brain?

Select the correct option

☐	ADAR1
☐	ADAR4
☐	ADAR2
☒	ADAR3



Click to See

Question # 10 of 10 (Start time: 10:52:35 AM, 26 July 2023)

The Amino acids polymerizing machinery is composed of at least _____ RNA molecules.

Select the correct option

☐

2

☐

4

☐

1

☒

3

[Click to Save Answer & Move to Next Question](#)

Question # 1 of 10 (Start time: 10:55:22 AM, 26 July 2023)

During RNA splicing hnRNP family lack RS domain which causes suppression of RNA splicing. Why?

 Select the correct option



Cannot recruit splicing machinery



Unable to bind RNA



Create steric hindrance



Create steric blockage

Click to Save Answer &

Question # 2 of 10 (start time: 10:57:17 AM, 26 July 2023)

Total Marks: 1

_____ number of domains are present in trigger factor

Select the correct option



Reload Math Equations



2



3



3



6



Click to Save Answer & Move to Next Question

Question # 3 of 10 (Start time: 10:59:40 AM, 26 July 2023)

_____ product of the following gene is only found in brain?

Select the correct option



ADAR4



ADAR3



ADAR1



ADAR2

Click to Save Answer &

Question # 4 of 10 (Start time: 11:00:30 AM, 26 July 2023)

The transcription machinery and the translation machinery in _____ are located in the same compartment.

Select the correct option

 Reload



Prokaryotes



Fungi



Viruses



Eukaryotes

Click to Save Answer & Move to Next

Question # 5 of 10 (Start time: 11:00:47 AM, 26 July 2023)

Leader sequence of CRISPR array is A-T rich and _____ in length

Select the correct option

☐

190

☒

500

☐

370

☐

200

[Click to Save Answer &](#)

Question # 6 of 10 (Start time: 11:01:40 AM, 26 July 2023)

Total

Which of the following proteins are synthesized by membrane bounded ribosomes?

Select the correct option

[Reload Math Equ](#)

- | | |
|----------------------------------|--------------------|
| ☐ | integral proteins |
| ☐ | lysosomal proteins |
| ☐ | secretary proteins |
| ☒ | All given |

[Click to Save Answer & Move to Next Question](#)

Question # 7 of 10 (Start time: 11:03:49 AM, 26 July 2023)

New amino acid are added to the_____of the growing polypeptide chain during protein synthesis.

Select the correct option

 Reload

☐

Amino terminus or carboxyl terminus

☒

Carboxyl terminus

☐

Positively charged side

☐

Amino terminus

Click to Save Answer & Move t

Question # 8 of 10 (Start time: 11:05:16 AM, 26 July 2023)

_____ processes are carried out before mRNA is being exported to the cytoplasm from the nucleus?

Select the correct option

 Reload



Transcription and polyadenylation



Transcription, Pre-mRNA splicing and Polyadenylation



Transcription and Pre-mRNA splicing



Only Pre-mRNA splicing



Click to Save Answer & Move to

Question # 9 of 10 (Start time: 11:06:50 AM, 26 July 2023)

Total Marks: 1

The ribosome must be able to bind at least _____ tRNAs simultaneously to perform the peptidyl transferase reaction.

Select the correct option



Reload Math Equations



1



2



4



3



Click to Save Answer & Move to Next Question

Question # 10 of 10 (start time: 11:08:14 AM, 26 July 2023)

One of the unusual bases found in tRNA is?

Select the correct option



Relo

☐

Guanine

☐

Cytosine

☒

Hypoxanthine

☐

Adenine



Click to Save Answer & Move

Question # 1 of 10 (start time: 04:35:47 PM, 26 July 2023)

Total Marks: 1

How many enzymatic steps are required by all aminoacyl-tRNA synthetases to attach an amino acid to a tRNA?

Select the correct option



Reload Math Equations

☐

3

☐

1

☒

2

☐

4

Click to Save Answer & Move to Next Question

Question # 2 of 10 (Start time: 04:36:16 PM, 26 July 2023)

Total Marks: 1

Which of the following proteins are synthesized by membrane bounded ribosomes?

Select the correct option

[Reload Math Equations](#)

All given



lysosomal proteins



integral proteins



secretary proteins

[Click to Save Answer & Move to Next Question](#)

Question # 3 of 10 (Start time: 04:36:27 PM, 26 July 2023)

Total Marks: 1

New amino acid are added to the _____ of the growing polypeptide chain during protein synthesis.

Select the correct option



Reload Math Equations



Carboxyl terminus



Amino terminus or carboxyl terminus



Positively charged side



Amino terminus

Click to Save Answer & Move to Next Question

Question # 4 of 10 (Start time: 04:36:45 PM, 26 July 2023)

Total Marks: 1

The diameter of exit tunnel of bacterial ribosome is about _____ at its narrow points

Select the correct option

 Reload Math Equations1Å⁰3Å⁰10Å⁰5Å⁰

Click to Save Answer & Move to Next Question

Question # 5 of 10 (start time: 04:36:57 PM, 26 July 2023)

Total Marks: 1

Poly-A tail enhances mRNA level of translation by:

select the correct option



Reload Math Equations



Blocking the activity of DNA polymerase



Enhancing the activity of RNA polymerase



Enhancing the recruitment of key translation initiation factors



Silencing the recruitment of key translation initiation factors

Click to Save Answer & Move to Next Question

Question # 6 of 10 (Start time: 04:38:10 PM, 26 July 2023)

Total Marks: 1

Which enzyme is used to add a formyl group rapidly to the methionine amino group.

Select the correct option



Reload Math Equations



Met-rRNA transformylase



Met-tRNA transformase



Arg-rRNA transformylase



Met-tRNA transformylase

Click to Save Answer & Move to Next Question

Question # 7 of 10 (start time: 04:38:46 PM, 26 July 2023)

Total Marks: 1

During translation proteins are synthesized _____

Select the correct option



Reload Math Equations



by ribosomes using the information on mRNA



by ribosomes using the information on rRNA



by ribosomes using the information on DNA



by lysosome using the information on DNA

Click to Save Answer & Move to Next Question

Question # 8 of 10 (Start time: 04:39:31 PM, 26 July 2023)

Total Marks: 1

Which molecular technique were used to find the direction of RNA editing by Kenneth Stuart and colleagues?

select the correct option



Reload Math Equations



Hot Start PCR



PCR



Fast PCR



RT-PCR



Click to Save Answer & Move to Next Question

Question # 9 of 10 (Start time: 04:40:46 PM, 26 July 2023)

The anticodon loop contains _____.

Select the correct option



Reload Mo



A three nucleotide anticodon



A three nucleotide codon



A four nucleotide anticodon



A four nucleotide codon



Click to Save Answer & Move to Ne

Question # 10 of 10 (Start time: 04:42:06 PM, 26 July 2023)

Total Marks: 1

_____ number of domains are present in trigger factor

Select the correct option



Reload Math Equations



2



0



3



5

Click to Save Answer & Move to Next Question

Question # 1 of 10 (Start time: 02:56:25 PM, 26 July 2023)

Total Marks: 1

Basic tools of genetic regulation are the ability of some proteins to bind to specific

Select the correct option

 Reload Math Equations☐

promoter portions of genes

☐

regulatory RNA sequences

☐

enzymes of cells

☒

regulatory DNA sequences

Click to Save Answer & Move to Next Question

Question # 2 of 10 (Start time: 02:57:36 PM, 26 July 2023)

Total Marks: 1

The ribosome must be able to bind at least _____ tRNAs simultaneously to perform the peptidyl transferase reaction.

Select the correct option



Reload Math Equations



1



2



3



4

Click to Save Answer & Move to Next Question

Question # 3 of 10 (start time: 02:58:52 PM, 26 July 2023)

Total Marks: 1

Enhancers are the _____ elements that can act at a distance to modulate transcription

Select the correct option



Reload Math Equations



Nucleotide



DNA



RNA



Protein

Click to Save Answer & Move to Next Question

Question # 4 of 10 (start time: 03:01:45 PM, 26 July 2023)

Total Marks: 1

Poly-A tail enhances mRNA level of translation by:

[Reload Math Equations](#)

Select the correct option



Enhancing the recruitment of key translation initiation factors



Blocking the activity of DNA polymerase



Enhancing the activity of RNA polymerase



Silencing the recruitment of key translation initiation factors

[Click to Save Answer & Move to Next Question](#)

Question # 5 of 10 (Start time: 03:03:29 PM, 26 July 2023)

Total Marks: 1

New amino acid are added to the _____ of the growing polypeptide chain during protein synthesis.

Select the correct option



Reload Math Equations



Positively charged side



Amino terminus or carboxyl terminus



Amino terminus



Carboxyl terminus

Click to Save Answer & Move to Next Question

Question # 6 of 10 (Start time: 03:04:06 PM, 26 July 2023)

Total Marks: 1

_____ product of the following gene is only found in brain?

Select the correct option



Reload Math Equations



ADAR4



ADAR2



ADAR1



ADAR3

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 03:04:55 PM, 26 July 2023)

Total Marks: 1

Which of the following proteins are synthesized by membrane bounded ribosomes?

Select the correct option

 Reload Math Equations

All given



integral proteins



lysosomal proteins



secretary proteins

Click to Save Answer & Move to Next Question

Question # 8 of 10 (start time: 03:05:50 PM, 26 July 2023)

Total Marks: 1

Leader sequence of CRISPR array is A-T rich and _____ in lenght

Select the correct option

 Reload Math Equations

370



200



500



190

Click to Save Answer & Move to Next Question

Question # 9 of 10 (Start time: 03:06:26 PM, 26 July 2023)

Total Marks: 1

Which initiation factor binds with small subunit and blocks it from re-associating with a large subunit?

Select the correct option

 Reload Math Equations

IF4



IF3

IF3



IF2



IF1

Click to Save Answer & Move to Next Question

Question # 10 of 10 (Start time: 03:07:17 PM, 26 July 2023)

Total Marks: 1

One of the unusual bases found in tRNA is?

 Reload Math Equations

Select the correct option



Cytosine



Guanine



Hypoxanthine



Adenine

Click to Save Answer & Move to Next Question