



Week 5 Post-Lesson Quiz - 2022



Question 1

✓ 1/1 point



The sequence of a gene that controls the activation of transcription is called a(n) _____.

A exon

B intron

promoter

You a swe

D terminator

E stop codon



Question 2

✓ 1/1 point



Which of the following processes does NOT occur during RNA processing?

A splicing

translation

You a swe

C addition of 5' G-cap

D addition of a 3' poly-A sequence



Question 3

✗ 0/1 point



Which statement is false?

A

Rough endoplasmic reticulum is where amino acid polypeptides are processed.



A number of RNA strands combine with nucleocapsid proteins in the formation of one virus

Correct answer

Genomic and subgenomic RNA are generated from -sense RNA.

Your answer

D

Spike is a structural protein.

E

The genome of SARS CoV-2 is RNA..



Question 4

✓ 1/1 point



The synthesis and processing of RNA occurs in which cellular compartment?

nucleus

Your answer

B

rough endoplasmic reticulum

C

smooth endoplasmic reticulum

D

mitochondria

E

Golgi apparatus



Question 5

✓ 1/1 point



Which RNA molecule is involved in adding amino acids to the growing peptide chain during translation?

A

mRNA

tRNA

Your answer

C	rRNA
D	miRNA
E	snRNA



Question 6

✓ 1/1 point



What are the protein coding regions of genes called?

A	spliceosomes
	exons You a swe
C	introns
D	anti-codons
E	mRNA



Question 7

✓ 1/1 point



The genetic code that produces amino acids during translation is said to be degenerate. What does this mean?

A	One codon can code for more than one amino acid.
B	One codon codes for only one amino acid.
C	One codon codes for two different amino acids.
	Multiple codons can code for one amino acid You a swe
E	A and D
F	B and D



Question 8

0/1 point



Using the codon table , which of these peptide sequences is the correct translation of the mature mRNA molecule transcribed from this sequence of DNA:

5'-TTT ACA ACG AGC TGT TTC-3'

		Second base of codon					
		U	C	A	G		
U	UUU	Ph ^e	Ser	UAU	Tyr	UGU	Cys
	UUC	UAC		UGC	C		
	UUA	UAA		UGA	A		
	UUG	UAG		UGG	G		
C	CUU	Leu	Pro	CAU	His	CGU	U
	CUC	CCC		CAC	Arg	C	
	CUA	CCA		CGA	G		
	CUG	CCG		CAG	Gln	G	
A	AUU	Ile	Thr	AAU	Asn	AGU	U
	AUC	ACC		AGC	Ser	C	
	AUA	ACA		AGA	A		
	AUG	ACG		AAG	Lys	Arg	G
G	GUU	Val	Ala	GAU	Asp	GGU	C
	GUC	GAC		GGC	G		
	GUA	GAA		GGA	Gly	A	
	GUG	GCG		GGG	G		

KEY

Ala = alanine
 Arg = arginine
 Asn = asparagine
 Asp = aspartic acid
 Cys = cysteine
 Gln = glutamine
 Glu = glutamic acid
 Gly = glycine
 His = histidine
 Ile = isoleucine
 Leu = leucine
 Lys = lysine
 Met = methionine
 Phe = phenylalanine
 Pro = proline
 Ser = serine
 Thr = threonine
 Trp = tryptophan
 Tyr = tyrosine
 Val = valine

FIGURE 10.9 The genetic code. The 64 possible codons allow some redundancy when encoding 20 amino acids and the stop signal (in red).

KEY
Ala = alanine
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Gln = glutamine
Glu = glutamic acid
Gly = glycine
His = histidine
Ile = isoleucine
Leu = leucine
Lys = lysine
Met = methionine
Phe = phenylalanine
Pro = proline
Ser = serine
Thr = threonine
Trp = tryptophan
Tyr = tyrosine
Val = valine

A Lys – Thr – Ser – Cys – Cys- Lys

Lys – Cys – Cys- Ser – Thr – Lys

You a swe

C Phe – Cys – Ser – Thr – Thr – Phe



Phe – Thr – Thr – Ser – Cys – Phe

Co ec a swe



Question 9

1/1 point



What are the protein coding regions of genes called?

A spliceosomes

exons

You a swe

C introns

D anti-codons

E promoter



Question 10

1/1 point



What is the function of viral polymerase in the SARS CoV-2 infection cycle?

A	exocytosis
B	breaking down introns
C	making polymers of amino acids
D	translation of subgeneric RNA
	producing sequences of RNA from RNA

You a swe

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