

Smart Edu Hub / Smart Exam Resources

9700 / CAIE A level Biology / Paper-1/ Multiple Choice Questions

1.2.6.1-Ribosomes-Set-1-qp

Total Questions: 11

Questions

Question 1:

Which cell components contain ribosomes?

- 1 chloroplast
- 2 mitochondrion
- 3 nucleus
- 4 cytoplasm

A 1, 2, 3 and 4

B 1, 2 and 3 only

C 1 and 2 only

D 3 and 4 only

Question 2:

Ribosomes exist as separate subunits that bind together during protein synthesis.

What do these subunits consist of?

- A** mRNA and protein
- B** mRNA and tRNA
- C** rRNA and protein
- D** rRNA and tRNA

Questions (Continued)

Question 3:

Ribosomes consist of two subunits, each containing rRNA. An analysis of all the 70S ribosomes from a single cell of the bacterium, *Escherichia coli*, showed that there were:

- 38 000 rRNA molecules
- 2 main types of rRNA molecule
- 19 000 copies of each type of rRNA molecule

How many 70S ribosomes were there in the *E. coli* cell?

A 9500 B 19 000 C 38000 D 76 000

Question 4:

Which size of ribosome is found in both chloroplasts and mitochondria?

A 60S B 70S C 80S D 90S

Question 5:

Which organelle does **not** contain a partially permeable membrane?

A Golgi apparatus
B lysosome
C mitochondrion
D ribosome

Question 6:

What are correct locations of ribosomes in the typical eukaryotic cell?

- 1 free in the cytoplasm
- 2 attached to the outside of the endoplasmic reticulum
- 3 attached to the inside of the endoplasmic reticulum

A 1, 2 and 3 B 1 and 2 only C 1 and 3 only D 2 and 3 only

Questions (Continued)

Question 7:

Which parts of a cell contain ribosomes?

- 1 chloroplast
- 2 mitochondrion
- 3 nucleus
- 4 cytoplasm

A 1, 2, 3 and 4 **B** 1, 2 and 3 only **C** 1, 2 and 4 only **D** 3 and 4 only

Question 8:

Which size of ribosome is found in chloroplasts and typical prokaryotic cells?

A 60S **B** 70S **C** 80S **D** 90S

Question 9:

Which row correctly identifies all the locations of ribosomes in a eukaryotic cell?

	free in cytoplasm	in mitochondria	attached to ER	attached to nuclear envelope	in nucleus
A	✓	✓	✓	✓	✓
B	✓	✗	✓	✗	✗
C	✗	✓	✗	✓	✓
D	✗	✗	✓	✓	✗

key
✓ = present
✗ = absent

Questions (Continued)

Question 10:

Which cell components contain ribosomes?

- 1 chloroplast
- 2 mitochondrion
- 3 nucleus
- 4 cytoplasm

A 1, 2, 3 and 4

B 1, 2 and 3 only

C 1 and 2 only

D 3 and 4 only

Question 11:

Ribosomes exist as separate subunits that bind together during protein synthesis.

What do these subunits consist of?

- A mRNA and protein
- B mRNA and tRNA
- C rRNA and protein
- D rRNA and tRNA