



live

International Vaccinology



## LIVE Sample MCQ

Please find below a sample questionnaire showing one basic question and one advanced question in each of the six fields: Biochemistry, Molecular Biology, Cell Biology, Physiology, Microbio-Virology and Immunology. The real questionnaire to answer during the application process is made up of 48 questions, i.e. 8 questions per field. Within these 8 questions, 5 are basic questions and 3 are advanced questions.

### Information

This assessment has a finite attempts' number. You have 1 attempts remaining.

[Start assessment](#)

Click to start the  
LIVE Multiple  
Answer Survey

### LIVE Multiple Answer Survey Example

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The multiple answer survey offers 5 answers per question. From 1 to 4 out of 5 answers are correct for each question. In other words, there is at least 1 right answer and 1 wrong answer among the 5 answers. This is a test of what you know and not of what you find on media. Please select all the answers that you find correct and advance as fast as possible because the time you spend is recorded and will be taken into account.

FIELD\_level

BIOCHEMISTRY\_advanced

The inhibition of hepatic gluconeogenesis by the large amounts of nicotamide mono nucleotide (NADH) produced by alcohol metabolism is due to:

[Reset my choices for this question]

- a. ☐ lower oxalacetate concentration which is reduced to malate.
- b. ☐ lower pyruvate levels by its conversion to lactate.
- c. ☐ lower concentration of dihydroxyacetone phosphate which is reduced to glycerol-3 phosphate.
- d. ☐ inhibition of the mitochondrial electron transport chain.
- e. ☐ inhibition of the glycerol-3 phosphate shuttle.

Click your choice(s) in the squares :  
from 1 minimum to 4 maximum  
are correct choices

Which functional group is in the structure  $\text{CH}_3\text{-CO-CH}_3$ ?

[Reset my choices for this question]

- a. ☐ aldehyde
- b. ☐ ketone
- c. ☐ amino
- d. ☐ alkyl
- e. ☐ ester

On post-transcriptional modifications, what are the correct statements?

[Reset my choices for this question]

- a. ☐ the poly(A) tail results from the polyadenylation of the 5' end eukaryotic mRNA.
- b. ☐ the cap is added on mRNAs transcribed in the nuclei.
- c. ☐ introns are common in Eukaryotes and have been found in Archaeobacteria.
- d. ☐ small nucleolar RNAs guide chemical modifications of ribosomal RNAs.
- e. ☐ introns are specific sites for pre-mRNA methylation.

Reverse transcriptase polymerase chain reaction (RT-PCR) is a molecular biology method

[Reset my choices for this question]

- a. ☐ to amplify DNA
- b. ☐ to amplify and quantify RNA
- c. ☐ to identify protein
- d. ☐ to identify exon
- e. ☐ to sequence gene

What is right for viruses?

[Reset my choices for this question]

- a. ☐ They divide by binary fission.
- b. ☐ They can measure more than  $0.5\mu\text{m}$ .
- c. ☐ They can be an intracellular parasite.
- d. ☐ They can have a flagellum.
- e. ☐ They survive outside eukaryotic cell

About the hypothalamus-hypophysis (Ht-Hp) axis, what are the correct statements?

[Reset my choices for this question]

- a. ☐ Oxytocin is a neurohormone secreted by hypothalamic neurons.
- b. ☐ The adenohypophysis produces several releasing hormones that act on other endocrine glands of the body.
- c. ☐ Hypothalamic and hypophyseal secretion of several hormones is under negative feedback control mediated by other hormones released by their target endocrine glands.
- d. ☐ Ht-Hp axis coordinates the nervous system and the endocrine system.
- e. ☐ Ht-Hp axis controls menstrual cycles in women.

Which sentences are right?

[Reset my choices for this question]

- a. ☐ Retroviruses are enveloped single- or double-stranded RNA.
- b. ☐ A provirus corresponds to DNA which is integrated into the host genome.
- c. ☐ Naked viruses do not possess any capsid.
- d. ☐ A phage is a bacterial virus.
- e. ☐ A retrovirus needs a reverse transcription step into the host cell.

Which one of the processes listed below is carried out by the smooth endoplasmic reticulum?

[Reset my choices for this question]

- a. ☐ lipid biosynthesis
- b. ☐ protein synthesis
- c. ☐ post-translational modification of proteins
- d. ☐ chemical modification of foreign molecules, including drugs
- e. ☐ steroid biosynthesis

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IMMUNOLOGY\_advanced

Which of the following molecules is a pattern recognition receptor (PRR) that recognizes pathogen-associated molecular pattern (PAMP)?

[Reset my choices for this question]

- a. ☐ TLR4 receptor
- b. ☐ N-formyl-methionyl receptor
- c. ☐ Mannose receptor
- d. ☐ B7.1 (CD80) receptor
- e. ☐ Flagelline receptor

IMMUNOLOGY\_basic

Which of the following are primary lymphoid organs?

[Reset my choices for this question]

- a. ☐ Spleen
- b. ☐ Bone marrow
- c. ☐ Thymus
- d. ☐ Mesenteric lymph node
- e. ☐ Lungs

PHYSIOLOGY\_basic

About the pancreas, what are the correct statements?

[Reset my choices for this question]

- a. ☐ Alpha pancreatic cells secrete insulin.
- b. ☐ Exocrine portions of the pancreas secrete enzymes that move through the pancreatic duct to the small intestine.
- c. ☐ Alpha pancreatic cells secrete glucagon.
- d. ☐ Glucagon and insulin are fat-soluble (lipophilic) hormones.
- e. ☐ Insulin is a peptide hormone which increases the blood glucose level.



A microtubule is:

[Reset my choices for this question]

- a. ☐ A component of flagella and cilia.
- b. ☐ A component of the nuclear envelop.
- c. ☐ A component of centrioles.
- d. ☐ A contractile apparatus.
- e. ☐ A component required for cellular respiration.

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Click « Next » to obtain  
the last page 3 for validation

## LIVE Multiple Answer Survey Example

ⓘ This is the last page of this quizz. Don't forget to submit your paper by clicking the button below.  
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Validate assessment

Click here to validate all the answers.