

# Biology 17 Biotechnology and Genomics MCQ

Biology 17 Gene Express.

Author: OpenStax College

Published 2015

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## 4. Chapter: Biology 17 Biotechnology and Genomics MCQ

### 1. Biology 17 Biotechnology and Genomics MCQ Questions

#### 4.1.1. GMOs are created by \_\_\_\_\_.

Author: OpenStax College

GMOs are created by \_\_\_\_\_.

Please choose only one answer:

- generating genomic DNA fragments with restriction endonucleases
- introducing recombinant DNA into an organism by any means
- overexpressing proteins in E. coli.
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [GMOs are created by . OpenStax College Biology 17 Biotechnology Quest](#)

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4.1.2. Gene therapy can be used to introduce foreign DNA into cells \_\_\_\_\_.

Author: OpenStax College

Gene therapy can be used to introduce foreign DNA into cells \_\_\_\_\_.

Please choose only one answer:

- for molecular cloning
- by PCR
- of tissues to cure inheritable disease
- all of the above

Check the answer of this question online at QuizOver.com:

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### 4.1.3. Insulin produced by molecular cloning:

Author: OpenStax College

Insulin produced by molecular cloning:

Please choose only one answer:

- is of pig origin
- is a recombinant protein
- is made by the human pancreas
- is recombinant DNA

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Question: [Insulin produced by molecular cloning: OpenStax College Biology 1](#)

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4.1.4. Bt toxin is considered to be \_\_\_\_\_.

Author: OpenStax College

Bt toxin is considered to be \_\_\_\_\_.

Please choose only one answer:

- a gene for modifying insect DNA
- an organic insecticide produced by bacteria
- useful for humans to fight against insects
- a recombinant protein

Check the answer of this question online at QuizOver.com:

Question: [Bt toxin is considered to be . OpenStax College Biology 17 Quest](#)

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#### 4.1.5. The Flavr Savr Tomato:

Author: OpenStax College

The Flavr Savr Tomato:

Please choose only one answer:

- is a variety of vine-ripened tomato in the supermarket
- was created to have better flavor and shelf-life
- does not undergo soft rot
- all of the above

Check the answer of this question online at QuizOver.com:

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4.1.6. ESTs are \_\_\_\_\_.

Author: OpenStax College

ESTs are \_\_\_\_\_.

Please choose only one answer:

- generated after a cDNA library is made
- unique sequences in the genome
- useful for mapping using sequence information
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [ESTs are . OpenStax College Biology 17 Biotechnology and Genomics](#)

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#### 4.1.7. Linkage analysis \_\_\_\_\_.

Author: OpenStax College

Linkage analysis \_\_\_\_\_.

Please choose only one answer:

- is used to create a physical map
- is based on the natural recombination process
- requires radiation hybrid mapping
- involves breaking and re-joining of DNA artificially

Check the answer of this question online at QuizOver.com:

Question: [Linkage analysis . OpenStax College Biology 17 Biotechnology and](#)

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#### 4.1.8. Genetic recombination occurs by which process?

Author: OpenStax College

Genetic recombination occurs by which process?

Please choose only one answer:

- independent assortment
- crossing over
- chromosome segregation
- sister chromatids

Check the answer of this question online at QuizOver.com:

Question: [Genetic recombination occurs by which OpenStax College Biology 17](#)

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#### 4.1.9. Individual genetic maps in a given species are:

Author: OpenStax College

Individual genetic maps in a given species are:

Please choose only one answer:

- genetically similar
- genetically identical
- genetically dissimilar
- not useful in species analysis

Check the answer of this question online at QuizOver.com:

Question: [Individual genetic maps in a given species OpenStax College Biology](#)

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#### 4.1.10. Information obtained by microscopic analysis of stained chromosomes...

Author: OpenStax College

Information obtained by microscopic analysis of stained chromosomes is used in:

Please choose only one answer:

- radiation hybrid mapping
- sequence mapping
- RFLP mapping
- cytogenetic mapping

Check the answer of this question online at QuizOver.com:

Question: [Information obtained by microscopic analysis OpenStax College Biology](#)

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#### 4.1.11. The chain termination method of sequencing:

Author: OpenStax College

The chain termination method of sequencing:

Please choose only one answer:

- uses labeled ddNTPs
- uses only dideoxynucleotides
- uses only deoxynucleotides
- uses labeled dNTPs

Check the answer of this question online at QuizOver.com:

Question: [The chain termination method of sequencing OpenStax College Biology](#)

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#### 4.1.12. Whole-genome sequencing can be used for advances in:

Author: OpenStax College

Whole-genome sequencing can be used for advances in:

Please choose only one answer:

- the medical field
- agriculture
- biofuels
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [Whole-genome sequencing can be used for OpenStax College Biology](#)

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### 4.1.13. Sequencing an individual person's genome

Author: OpenStax College

#### Sequencing an individual person's genome

Please choose only one answer:

- is currently possible
- could lead to legal issues regarding discrimination and privacy
- could help make informed choices about medical treatment
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [Sequencing an individual person's genome OpenStax College Biology](#)

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#### 4.1.14. What is the most challenging issue facing genome sequencing?

Author: OpenStax College

What is the most challenging issue facing genome sequencing?

Please choose only one answer:

- the inability to develop fast and accurate sequencing techniques
- the ethics of using information from genomes at the individual level
- the availability and stability of DNA
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [What is the most challenging issue facing OpenStax College Biology](#)

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#### 4.1.15. Genomics can be used in agriculture to:

Author: OpenStax College

Genomics can be used in agriculture to:

Please choose only one answer:

- generate new hybrid strains
- improve disease resistance
- improve yield
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [Genomics can be used in agriculture to: OpenStax College Biology](#)

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#### 4.1.16. Genomics can be used on a personal level to:

Author: OpenStax College

Genomics can be used on a personal level to:

Please choose only one answer:

- decrease transplant rejection
- Predict genetic diseases that a person may have inherited
- Determine the risks of genetic diseases for an individual's children
- All the above

Check the answer of this question online at QuizOver.com:

Question: [Genomics can be used on a personal level OpenStax College Biology](#)

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#### 4.1.17. What is a biomarker?

Author: OpenStax College

What is a biomarker?

Please choose only one answer:

- the color coding of different genes
- a protein that is uniquely produced in a diseased state
- a molecule in the genome or proteome
- a marker that is genetically inherited

Check the answer of this question online at QuizOver.com:

Question: [What is a biomarker OpenStax College Biology 17 Biotechnology and](#)

Flashcards:

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#### 4.1.18. A protein signature is:

Author: OpenStax College

A protein signature is:

Please choose only one answer:

- the path followed by a protein after it is synthesized in the nucleus
- the path followed by a protein in the cytoplasm
- a protein expressed on the cell surface
- a unique set of proteins present in a diseased state

Check the answer of this question online at QuizOver.com:

Question: [A protein signature is: OpenStax College Biology 17 Biotechnology](#)

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