Q

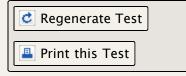
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# ← Biotechnology Test Test

#### 15 Matching Questions

- 1. Plasmid
- 2. PCR Process
- 3. humulin
- 4. pluripotent
- polymerase chain reaction (PCR)
- 6. Gel Electrophoresis
- 7. DNA Transformation
- 8. Human Genome Project
- 9. PCR
- 10. 1. Forensic Science 2.
   Know where genes are located
   3. Develop gene therapy 4.
   show evolutionary relationships
   5. compare processes among multi-cellular organisms (EVODEVO)
- 11. embryonic stem cells
- 12. Carlos Slim Helu (\$69billion) who owns Telecom and lives in Mexico just topping # 2Bill Gates (\$61 billion)

- a Is much smaller than the human genome, and most of it codes for proteins. Circular, haploid with no nucleus, and codes around 4 million base pairs
- mechanism of horizontal gene
  transfer between bacteria in which
  the bacterial DNA is transferred as
  "naked" DNA; incorporates DNA
  bits into its own chromosomes
  thus expressing the genes from
  the transferred DNA
- c technique that allows to make many copies of a particular gene
- d 1. add DNA, DNA polymerase, enzyme, primers, nucleotides 2. denature DNA to separate strands 3. Anneal DNA/cool to hybridize with primers and build DNA (extension)
- e procedure used to separate and analyze DNA fragments by placing a mixture of DNA fragments at one end of a porous gel and applying an electrical voltage to the gel
- a form of insulin made from recombinant DNA that is identical to human insulin, produced in great quantities by producing many bacteria that carry out the same protein
- a small cellular inclusion consisting of a ring of DNA that is not in a chromosome but is capable of autonomous



### Question Types

Written

Matching

Multiple Choice

True/False

## **Prompt With**

Term

Definition

#### **Question Limit**

of 40 available terms



- 13. Taq polymerase
- 14. Bacterial genome
- 15. DNA ligase

- replication; circular molecule in bacteria that holds DNA
- An international effort to map the complete human genetic code.

  This effort was essentially completed in 2001, though analysis is ongoing
- are pluripotent; the ultimate aim is to use them for the repair of damaged or diseased organs
- polymerase extracted from bacteria that live in hot springs that is used during PCR technique
- polymerase chain reaction, a technique that allows to make many copies of a particular gene
- an enzyme that ties the ends of inserted DNA in genetic engineering (or Okazaki fragments in DNA replication)
- 5 Reasons the Human Genome Project is important
- **n** Who is the world's richest person?
- capable of differentiating into many different cell types; stem cells are pluripotent

# 15 Multiple Choice Questions

- 1. small, circular DNA molecules that replicate separately from the bacterial chromosome
  - a. primers
  - b. Plasmid
  - c. Ti plasmid
  - d. plasmids
- 2. artificially made pieces of single-stranded DNA that must be present for DNA polymerase to initiate replication (used in PCR)
  - a. PCR Primers
  - b. PCR

d.

Biotechnology Test   Quizlet					
	c.	plasmids			
	d.	primers			
3.	a.	me that cuts DNA at a specific sequence of nucleotides (palindrome area) restriction site			
	b.	Bacterial genome			
	c.	restriction enzyme			

- 4. a specific sequence on a DNA strand that is recognized as a "cut site" by a restriction enzyme.
  - sticky end
  - b. gene cloning

sticky end

- restriction enzyme c.
- d. restriction site
- 5. the use of computers, software, and mathematical models to process and integrate biological information from large data sets.
  - binary fission
  - b. Ti plasmid
  - bioinformatics c.
  - d. **DNA** Transformation
- 6. a carrier used to transfer a gene from one organism to another in genetic engineering (a virus, or recombinant plasmid)
  - Mapping genomes
  - b. cloning vector
  - c. homeobox
  - d. pluripotent
- 7. a single stranded end of a restriction fragment; can form hydrogen bonds with complementary single stranded pieces of DNA.
  - stem cells
  - b. sticky end
  - Ti plasmid c.
  - d. primers
- 8. unspecialized cell that can give rise to specialized cells
  - a. humulin
  - b. stem cells

	C.	Genome		
	d.	primers		
9.	180 nucleotide sequence which determines development of body organization of vertebrates and invertebrates			
	a.	Genome		
	b.	primers		
	с.	humulin		
	d.	homeobox		
10.	Are de	signed to base pair with ends of the DNA strands and will be mixed NA		
	a.	PCR Process		
	b.	primers		
	c.	pluripotent		
	d.	PCR Primers		
11.	Bacterial reproduction in which they split into two equal sized cells. Rapid growth: happens once every 20 minutes			
	a.	Plasmid		
	b.	gene cloning		
	с.	DNA ligase		
	d.	binary fission		
12.	insertion of normal genes into human cells to correct genetic disorders			
	a.	gene cloning		
	b.	Genome		
	С.	Farther		
	d.	gene therapy		
13.	In gel electrophoresis, the small DNA fragments travel than the large fragments.			
	a.	PCR		
	b.	Farther		
	c.	Genome		
	d.	primers		
14.	to loca	te all of the genes of an organism and locate them on chromosomes  Genome		
	b.	Bacterial genome		