

تم تحميل هذا الملف من موقع المناهج الإماراتية



## مراجعة نهائية شاملة وفق الهيكل الوزاري الخطة M101

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر العام ← علوم ← الفصل الأول ← ملفات المدرس ← الملف

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ملفات اكتب للمعلم اكتب للطالب الاختبارات الكترونية الاختبارات ا حلول اعروض بوربوينت ا أوراق عمل  
منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك الامتحان النهائي للمدرس

المزيد من مادة  
علوم:

إعداد: محمد أحمد رجب

## التواصل الاجتماعي بحسب الصف الثاني عشر العام



صفحة المناهج  
الإماراتية على  
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

## المزيد من الملفات بحسب الصف الثاني عشر العام والمادة علوم في الفصل الأول

حل مراجعة نهائية وفق الهيكل الوزاري

1

أسئلة الامتحان النهائي القسم الالكتروني للعام 2020-2021

2

مراجعة نهائية وفق الهيكل الوزاري

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تجميع أسئلة مراجعة وفق الهيكل الوزاري منهج بريدج الخطة M

4

شرح درس التفاعلات الكيميائية من الكيمياء في علم الأحياء

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# التوأمة بين مدرسة الظاهرة ومدرسة العطاء

## Biology Final Revision

Grad 12 General: M.101-B

CH1- **Genetics and Biotechnology**

CH2- **Endocrine system**

### Term 1

### 2024-2025

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Name:-----

Revision Biology: Gr 12 General

4	BIO.3.2.04.010 يشرح كيف أن البشر قادرون بالانتخاب الصناعي على التأثير في صفات محددة للكائنات الحية من خلال التزاوج الداخلي	39
	BIO.3.2.04.010 Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding	39

	Describe	some advantages	A disadvantage
Hybridization	is crossing parent organisms with different forms of a trait to produce offspring with specific traits	1-Disease resistance 2- produce more offspring 3- Grow faster 4- more nutritious 5-Adapt to environment changes	1- Time-consuming 2-Expensive.
Inbreeding	The process in which two closely related organisms are bred to have the desired traits and to eliminate the undesired ones in future generations.	1-Pure breeds are maintained 2-To eliminate the undesired ones in the future	1-harmful recessive traits can be passed on to future generations. (homozygous recessive offspring) 2-increases the chance of homozygous recessive offspring if both parents carry the recessive allele

1- Which of the following is the process of crossing parent organisms with different forms of a trait to produce offspring with specific traits?

- a- Hybridization
- b- inbreeding
- c- selective breeding
- d- test crossing

2- Which statement is not true of hybridization?

- a- It is relatively inexpensive to perform.
- b- produces offspring with specific traits
- c- It crosses a parent organism with different forms of a trait.
- d- It can take a long time to be successful.

3- Which of the following is a disadvantage of hybridization?

- a- Hybridization is harmful to the affected organisms
- b- Hybridization is time-consuming and expensive
- c- Hybridization is technically difficult to perform
- d- Hybridization inferior to genetic engineering

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4- In the field of agriculture, hybridization is commonly employed to create new plant varieties. Which of the following best describes the outcome of hybridization in this context?

- a- The resulting plants are genetically identical to their parent plants.
- b- The resulting plants often have reduced resistance to pests and diseases.
- c- The resulting plants exhibit a combination of desirable traits from the parent plants.
- d- The resulting plants are always sterile and cannot produce seeds.

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4- Which of the following is a disadvantage of inbreeding?

- a- Inbreeding maintains Pure breeds
- b- Inbreeding eliminates the undesired ones in the future
- c- Inbreeding increases Harmful recessive traits can be passed on to future generations
- d- Inbreeding is time-consuming and expensive

6- Which is the process by which unwanted aggressive behaviors are bred out of certain types of dogs?

- a- Hybridization
- b- Genetic Engineering
- c- Test crosses
- d- Inbreeding

7- Harmful recessive traits can be passed through generations of purebred animals as a result of

- a- Hybridization
- b- Inbreeding
- c- Line breeding
- d- out crossing

1	يشرح كيف أن البشر قادرون بالانتخاب الصناعي على التأثير في صفات محددة للكائنات الحية من خلال التزاوج الداخلي	BIO.3.2.04.010	الشكل 2	40
	BIO.3.2.04.010 Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding		Figure 2	40
2	يشرح كيف أن البشر قادرون بالانتخاب الصناعي على التأثير في صفات محددة للكائنات الحية من خلال التزاوج الداخلي	BIO.3.2.04.010		40
	BIO.3.2.04.010 Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding			40
3	يشرح كيف أن البشر قادرون بالانتخاب الصناعي على التأثير في صفات محددة للكائنات الحية من خلال التزاوج الداخلي	BIO.3.2.04.010	التفكير الناقد	40
	BIO.3.2.04.010 Explain that in artificial selection, humans have the capacity to influence certain characteristics of organisms through selective breeding		Think Critically	40

8- The cross below could be used to determine the genotype of a parent with a dominant phenotype.

What is this type of cross called?

- a- Test-cross
- b- Homozygous cross
- c- Parental cross
- d- Heterozygous cross

	Heterozygous white grapefruit	
	W	w
Homozygous red grapefruit	w	Ww
	w	Ww

	Homozygous white grapefruit	
	W	W
Homozygous red grapefruit	w	Ww
	w	Ww

9- What is the genotypic ratio of the offspring in the cross to the right?

- a- 1:2:1
- b- 1:1
- c- 1:3
- d- 1:0

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	Heterozygous white grapefruit	
	W	w
Homozygous red grapefruit	w	Ww
	w	Ww

10- What is the genotypic ratio of the offspring in the cross to the right?

- a- 1:2:1
- b- 1:1
- c- 1:3
- d- 1:0

	Homozygous white grapefruit	
	W	W
Homozygous red grapefruit	w	Ww
	w	Ww

**11-** Once a tomato grower observes the desired trait in her tomato plants, she decides to perform a test cross. What is the purpose for doing the test cross?

- a- to determine if the trait is dominant or recessive
- b- to determine the phenotype of the plants
- c- to determine if the plants carry beneficial recessive alleles
- d- to determine if the plants are homozygous dominant or heterozygous

**12-** Why should a cow and a bull that carry a recessive allele for a mutation that causes decreased milk production not be bred?

- a- it will increase the chance of homozygous recessive offspring.
- b- it will increase the chance of homozygous dominant offspring.
- c- it will decrease the chance of homozygous recessive offspring.
- d- it will eliminate the undesired ones in the future.

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**13-** A breeder performs a test cross to determine the genotype of a black cat. He crosses the black cat (BB or Bb) with a white cat (bb).

If 50 percent of the offspring are black, what is the genotype of the offspring black cats?

- a- bb
- b- BB
- c- Bb
- d- WB

**14-** A person wishes to raise guinea pigs with black fur, the dominant trait. She selects a male black guinea pig and performs a test cross with a female that has white fur, the recessive trait. What is the black guinea pig's genotype if any of the offspring are white?

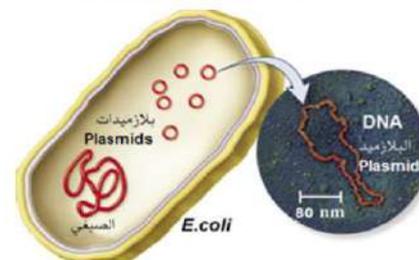
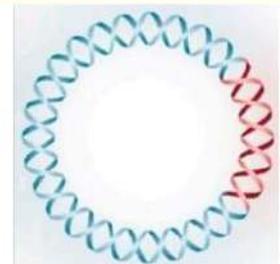
- a- BB
- b- Bb
- c- bb
- d- BW

6		يوضح آليات التعبير الجيني واستبدال الجينات التالفة بأخرى سليمة	BIO.3.3.02.024	الشكل 6	44
		Illustrate the mechanisms of gene therapy and the replacement of defective genes with healthy ones		Figure 6	44

**15-** The figure shows a recombinant nucleic acid plasmid.

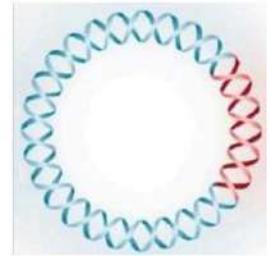
What is the role of the molecule below in DNA cloning?

- a- To make foreign DNA susceptible to digestion with enzymes
- b- To identify the host cell that taken up the gene of interest
- c- To identify the source of DNA as foreign
- d- To carry the foreign DNA into the host cell



16- The figure below represents the vector used in the DNA cloning process. Which of the following statements about the vector is false?

- a- It is used to transfer the foreign DNA into the host cell.
- b- It carries DNA from different sources called recombinant DNA.
- c- plasmid and viruses are commonly used vectors in the process.
- d- Its main role is to make the DNA susceptible to digestion enzymes.



17- Which of the following is commonly used as vector (example of a vector):

- a- Plasmids
- b- DNA ligase
- c- bacteria
- d- antibiotic

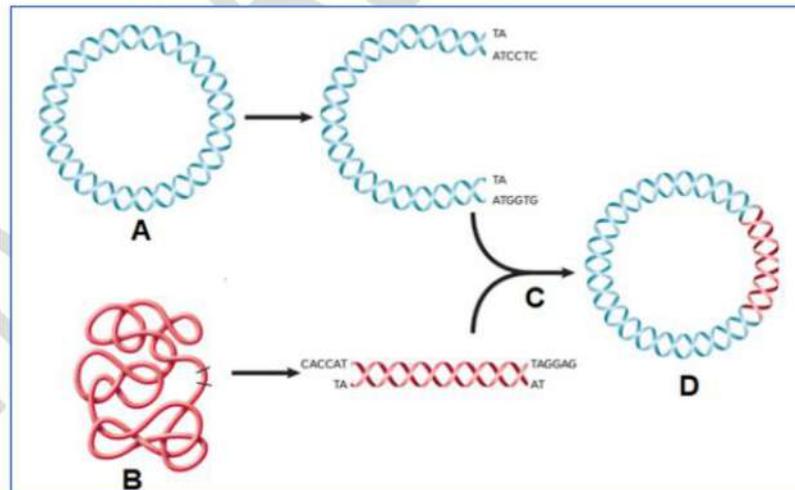
18- Recombinant DNA is created by joining DNA from two different sources. Which letter of the following refers to genomic DNA in the illustration shown below?

- 1- A
- 2- B
- 3- C
- 4- D

19- (Biologists use to join two DNA molecules together)?

19- Which enzymes is used in the region indicated by the letter C

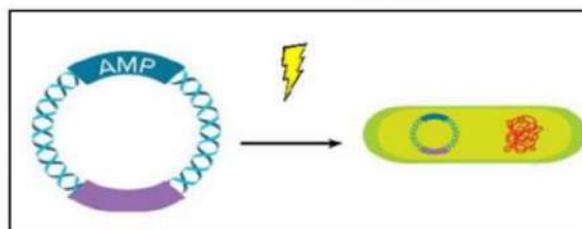
- a- ECORI cut
- b- RNA Polymerase
- c- DNA ligase
- d- DNA Polymerase



5	يوضح آليات التعبير الجيني واستبدال الجينات التالفة بأخرى سليمة	BIO.3.3.02.024	الشكل 7	45
	BIO.3.3.02.024 illustrate the mechanisms of gene therapy and the replacement of defective genes with healthy ones		Figure 7	45

Study the figure below and answer the question.

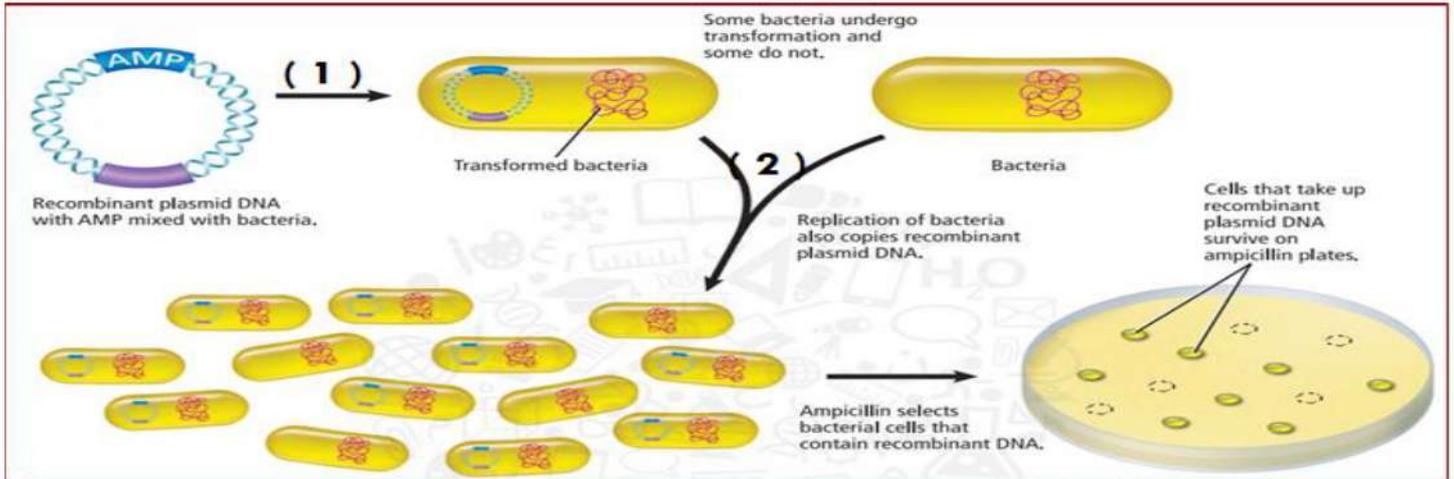
What process uses electric pulsation or heat to create openings in the plasma membrane of bacterial cells?



- a- Transformation
- b- Recombinant DNA formation
- c- Gel electrophoresis
- d- Transcription

مدرسة / الظاهرة للتعليم الأساسي والثانوي للبنين

21- The figure below shows making a large quantity of recombinant plasmid, Study it and then answer the question: Which of the following does numbers (1) and (2) refer to?



a- (1) Transformation, (2) cloning

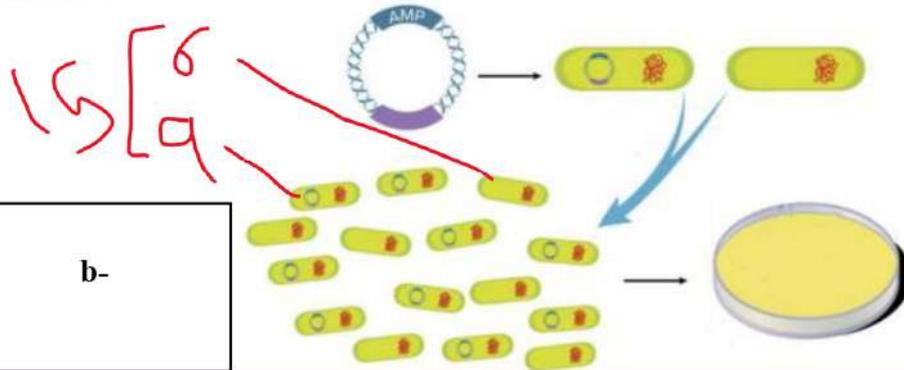
b- (1) transformation, (2) Gel electrophoresis

c- (1) cloning, (2) transformation

d- (1) Gel electrophoresis, (2) transformation

The figure below represents the transformation process of bacterial cells to produce ampicillin resistant strain. What percentage of the cloned bacterial cells will be able to resist the ampicillin?

يمثل الشكل أدناه عملية تحول خلايا البكتيريا لإنتاج سلالة مقاومة للأمبيسلين. ما هي النسبة المئوية للخلايا البكتيرية المستنسخة التي ستكون قادرة على مقاومة الأمبيسلين؟



a- 69%  
b- 60%

23- Which is the process that scientists use to produce large number of recombinant molecules?

a- Gel electrophoresis

b- Polymerase chain reaction

c- Recombinant DNA technology

d- Gene cloning

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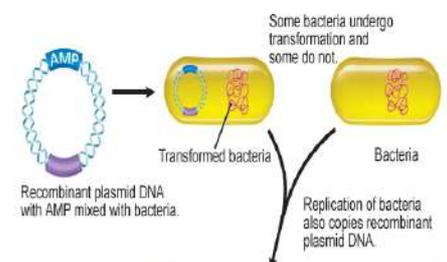
24- The process in which bacteria take the recombinant plasmids is called:

a- Link

b- transformation

c- adhesion

d- the transfer



25- How do researchers distinguish between the bacterial cells that contain the recombinant DNA and those that do not?

- a- They observe the two types of cells under a microscope.
- b- They tag the recombinant DNA with fluorescent dye.
- c- They use an antibiotic to kill the cells that do not contain recombinant DNA.
- d- They use gel electrophoresis to separate the cells containing recombinant DNA.



9	يوضح آليات التعبير الجيني واستبدال الجينات التالفة بأخرى سليمة BIO.3.3.02.024	45
	BIO.3.3.02.024 Illustrate the mechanisms of gene therapy and the replacement of defective genes with healthy ones	45

26- Which process is applied to identify mutation or errors in DNA molecules?

- a- DNA sequencing
- b- Polymerase chain reaction
- c- Gene cloning
- d- Gel electrophoresis

27- technique used to determine the order of nucleotide in a gene?

- a- DNA sequencing
- b- Polymerase chain reaction
- c- Gene cloning
- d- Gel electrophoresis

28- Which of the following is not a use of the DNA sequencing technique?

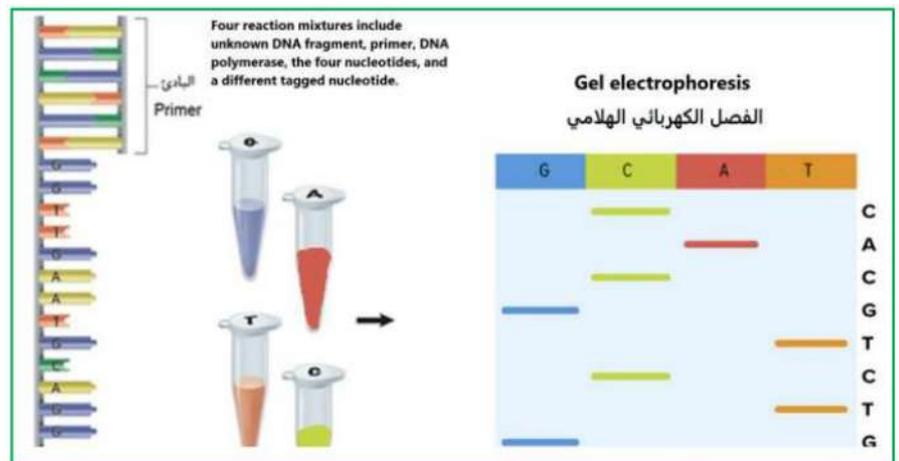
- a- Predict the function of the gene
- b- Identify mutations or errors in the DNA sequence
- c- Compare the gene with similar sequences from other organisms
- d- To separate DNA fragments according to size

8	يوضح آليات التعبير الجيني واستبدال الجينات التالفة بأخرى سليمة BIO.3.3.02.024	الشكل 8	46
	BIO.3.3.02.024 Illustrate the mechanisms of gene therapy and the replacement of defective genes with healthy ones	Figure 8	46
11	يوضح آليات التعبير الجيني واستبدال الجينات التالفة بأخرى سليمة BIO.3.3.02.024		46
	BIO.3.3.02.024 Illustrate the mechanisms of gene therapy and the replacement of defective genes with healthy ones		46

29- The figure below shows the arrangement of DNA sequences using fluorescently labeled nucleotides.

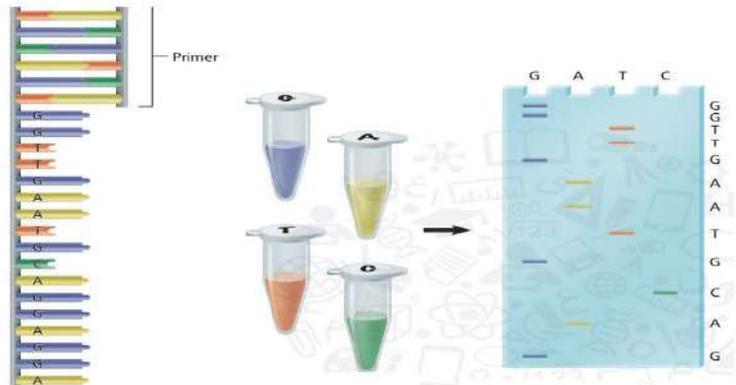
On what basis are the fluorescently labeled fragments separated in gel electrophoresis?

- a- Weight
- b- Mass
- c- length
- d- Density



30- What is used in DNA sequencing technology to determine the order of the DNA sequence?

- a- Recombinant Plasmid DNA
- b- Restriction enzyme
- c- fluorescent-tagged nucleotides
- d- RNA Polymerase

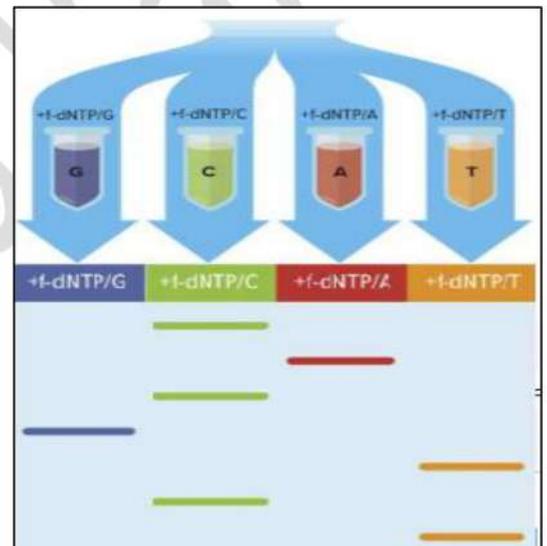


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31- The figure below represents the Gel electrophoresis in the DNA sequencing process of an unknown DNA fragment where fluorescent- tagged nucleotides were used with four different colors.

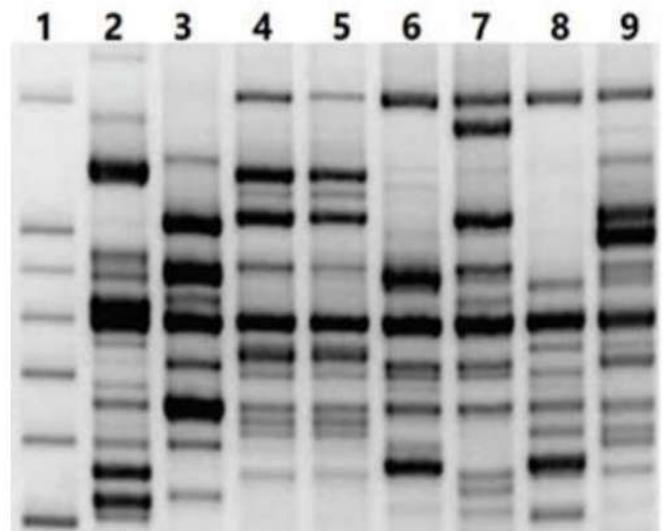
Which of the following is the right is the sequence of the nucleotides on the gel below?

- a- C A C G T C T
- b- T A C C C G T
- c- G C C C A T T
- d- C T G C A G T



32- The figure below shows the DNA fragment pattern of nine samples after the packed gel was placed in the electrophoresis tank and the current was turned on. Which of the following pairs of numbers represents the samples with identical DNA profiles?

- a- 4,5
- b- 8,9
- c- 1,9
- d- 6,7





33- Why is polymerase chain reaction (PCR) one of the most powerful tools used by scientists?

- a- It can be used to identify errors in DNA sequences and predict the function of genes.
- b- It can detect a single DNA molecule in a sample and make millions of copies of it.
- c- It creates large amounts of recombinant DNA in genetically engineered organisms.
- d- It creates DNA fragments with sticky ends that can join with other DNA fragments.

34- Why is the polymerase chain reaction used?

- a- to amplify DNA
- b- to ligate DNA
- c- to cut DNA
- d- to separate DNA

35- The polymerase chain reaction uses:

- a- To bind two DNA
- b- To cut DNA
- c- To make millions of copies of DNA
- d- To separate the DNA

36- What technology do doctors use to detect infectious diseases such as AIDS and COVID-19:

- a- DNA sequencing
- b- Polymerase chain reaction (PCR)
- c- Gene cloning
- d- Gel electrophoresis

7	يصف بعض الأمثلة على التعديل الوراثي ، ويشرح كيفية تطبيقه في الصناعة والزراعة BIO.3.3.01.021	48
	BIO.3.3.01.021 Describe some examples of genetic modification, and explain how its applied in industry and agriculture	48
10	يصف بعض الأمثلة على التعديل الوراثي ، ويشرح كيفية تطبيقه في الصناعة والزراعة BIO.3.3.01.021	48
	BIO.3.3.01.021 Describe some examples of genetic modification, and explain how its applied in industry and agriculture	48

## Transgenic Animals

- Scientists produce most transgenic animals in laboratories for biological research.

Transgenic Animals	Genetic engineering
Mice, fruit flies, and the roundworm <i>Caenorhabditis elegans</i> ( <i>C elegans</i> )	Study disease and develop ways to treat them
Transgenic livestock	Improve the food supply and human health.
Transgenic goats	Secrete antithrombin III, a protein used to prevent human blood from clotting during surgery
Transgenic chickens and turkeys	Resistant to diseases.
Fishes	Grow faster.
Transgenic animals In the future	Might be used as a source of organ transplants.



37-Organisms genetically engineered by inserting a gene from another organism are called:

- a- Test Cross
- b- hybrids
- c- Transgenic organisms
- d- normal organisms

38- Which of the following organisms has been Genetically engineered to improve the food supply and human health?

- a- goats
- b- chickens and turkeys
- c- The roundworm (Caenorhabditis elegans)
- d- Transgenic livestock

39- Which of the following organisms has been Genetically engineered to Secrete a protein used to prevent human blood from clotting during surgery

- a- Goats
- b- chickens and turkeys
- c- The roundworm (Caenorhabditis elegans)
- d- Transgenic livestock

40- which of the following organisms has been Genetically engineered to be used in research laboratories around the world to study diseases and develop ways to treat them?

- a- goats
- b- chickens and turkeys
- c- The roundworm (Caenorhabditis elegans)
- d- Transgenic livestock

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41- Which of the following provides an example of a transgenic organisms?

- a- Praying mantises raised to kill garden pests
- b- German shepherd hard to identity explosives
- c- Chicken genetically engineered to resist diseases
- d- Hybrid rice grain that produces higher yields

42- Which of the following provides an example of a transgenic organisms?

- a- Praying mantises raised to kill garden pests.
- b- Peanuts and soybeans do not cause allergic reactions.
- c- Plants that produce biodegradable plastic.
- d- Hybrid rice grain that produces higher yields.

43- Which of a transgenic organism is used for increased iron and vitamins that could decrease malnutrition in Asian countries?

- a- Sweet-potato plants
- b- Peanuts plants
- c- Banana plants
- d- Rice plants



**52-** For what purpose is DNA typing (DNA fingerprinting) used?

- a- to sequence DNA from bacteria
- b- to separate DNA fragments
- c- to identify individuals who have committed crimes
- d- to identify single nucleotide polymorphisms

**52-** The figure below shows samples obtained from humans, such as blood, hair, and saliva that can be used by forensic scientists for DNA typing. Which of the following best describes the process of DNA typing?

- a- It is the process of separating an individual unique sequence of DNA fragments to observe distinct patterns.
- b- It is the process of determining the sequence of the protein coding regions of the DNA.
- c- It is the process of determining short stretches regions of the DNA and their related functions.
- d- It is the process of creating numerous strands of DNA fragments from preexisting ones using nucleotides.



**53-** Which of the following explains why a forensic scientist uses the noncoding regions of DNA rather than the coding regions of DNA?

- a- The noncoding regions of DNA are identical to each individual.
- b- The noncoding regions of DNA can create proteins.
- c- The coding regions of DNA cannot create proteins.
- d- The noncoding regions of DNA are unique to each individual.

15	<p>BIO.3.3.03.005 يدرس تعديل الشيفرات الوراثية لإنتاج بروتينات سليمة للوقاية من الأمراض وتركيب الجينوم البشري وأهميته في تحديد النسب والكشف عن الجرائم باستخدام الحاسوب من خلال استخدام البرامج التفاعلية</p>	56
	<p>BIO.3.3.03.005 Study the importance of the genetic codes modification intact for the prevention of diseases and the importance of the human genome composition in determining the paternity and crime, by using the interactive software in a computer</p>	56

**54-** Which of the following is Project Identifying All Individual Patterns in the Human Genome?

- a- Proteomics
- b- HapMap
- c- Genetic Pharmacology
- d- Gene therapy

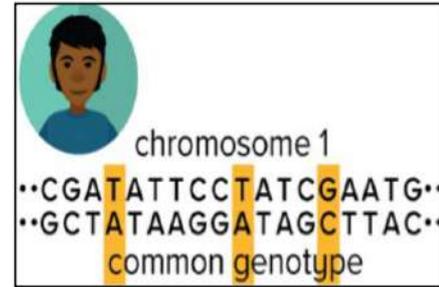
**55-** Variations in the DNA sequence that occur when a single nucleotide in the genome is altered Are called:

- a- The noncoding sequences
- b- Sequencing the Genome
- c- single nucleotide polymorphisms
- d- Proteomics

56- The graph below is an illustration of the HapMap project.

Which of the following represents the primary goal of the project?

- a- Catalog the genetic sequences of individual DNA
- b- Create a database for genetic biological information
- c- Map the sequence of nucleotides in human DNA
- d- Identify genes that cause serious human disease



57- The study of how genetic inheritance affects the body's response to drugs is called ....

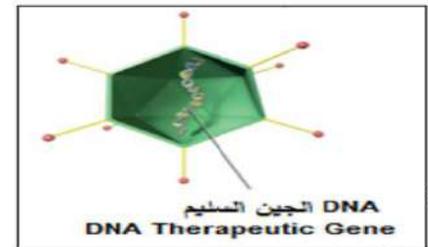
- a- Pharmacogenomics
- b- Bioinformatics
- c- DNA microarrays
- c- Gene therapy

58- Which of the following does not include the benefits of pharmacogenomics?

- a- More accurate dosing of drugs that are safer and more specific.
- b- for drugs to be custom-made for individuals based on their genetic makeup.
- c- increase safety, speed recovery, and reduce side effects.
- d- Identify genes that cause serious human disease

59- The figure below shows DNA encapsulated in a virus and delivered into a patient to replace a defective gene. Once the virus enters the cells, the genetic information is released into the nucleus and inserted into the genome. What is this technique called?

- a- Pharmacogenomics
- b- Bioinformatics
- c- DNA microarrays
- c- Gene therapy



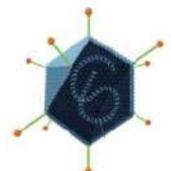
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60- Why has the Food and Drug Administration halted clinical trials using gene therapy?

- a- The clinical trials affect the body's response to drugs.
- b- There is a risk of producing a transgenic human.
- c- Inserting genes is done by a virus that infects the patient's cells.
- d- Doctors are able to take advantage of genetic variations on chromosomes

61- In most Gene Therapy studies, target cells in the patient are infected with a viral vector, like the one in the figure below. What is the benefit of Gene Therapy?

- a- Determining more accurate dosing of drugs that are safer.
- b- Identifying suspects and determining parents.
- c- Helping researchers find genes that cause disease and affect a person's response to drugs.
- d- Correcting mutated genes that cause human diseases.



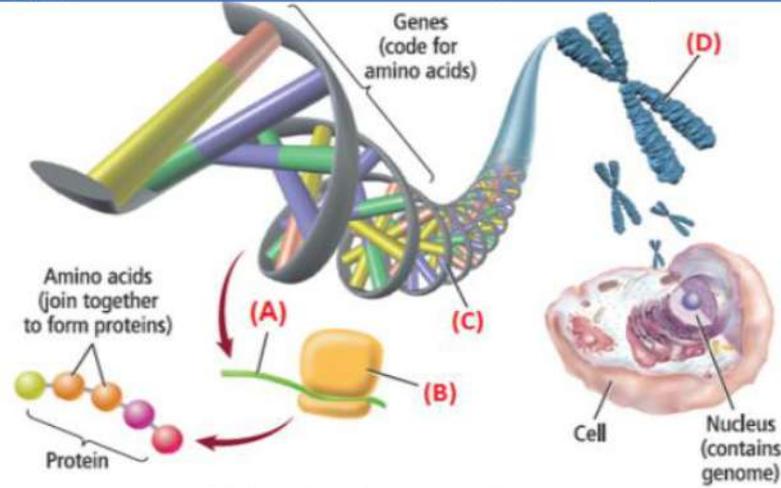
12	من الجرائم باستخدام الحاسوب من يدرس تعديل الشيفرات الوراثية لإنتاج بروتينات سليمة للوقاية من الأمراض وتركيب الجينوم البشري وأهميته في تحديد النسب والكشف عن الجرائم باستخدام الحاسوب من خلال استخدام البرامج التفاعلية	BIO.3.3.03.005	الشكل 18	57
	BIO.3.3.03.005 Study the importance of the genetic codes modification intact for the prevention of diseases and the importance of the human genome composition in determining the paternity and crime, by using the interactive software in a computer		Figure 18	57
16	من الجرائم باستخدام الحاسوب من يدرس تعديل الشيفرات الوراثية لإنتاج بروتينات سليمة للوقاية من الأمراض وتركيب الجينوم البشري وأهميته في تحديد النسب والكشف عن الجرائم باستخدام الحاسوب من خلال استخدام البرامج التفاعلية	BIO.3.3.03.005		57
	BIO.3.3.03.005 Study the importance of the genetic codes modification intact for the prevention of diseases and the importance of the human genome composition in determining the paternity and crime, by using the interactive software in a computer			57

62- Which letter refers to the DNA?

- 1- A                      2- B  
3- C                      4- D

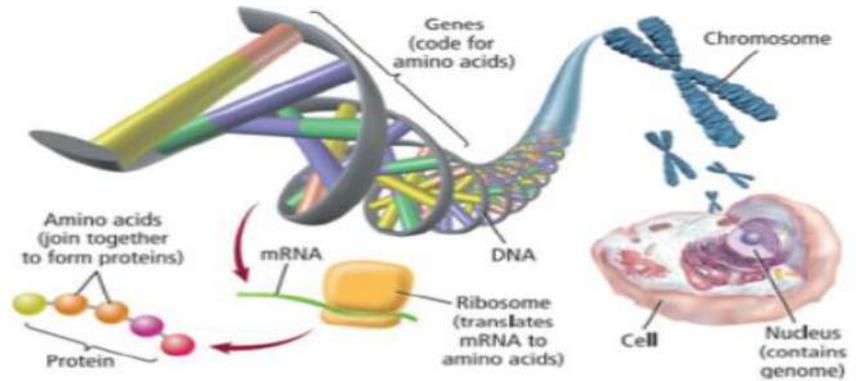
63- Which letter refers to the mRNA?

- 1- A                      2- B  
3- C                      4- D



64- The information genes flow from DNA to RNA and RNA to proteins. Which of the following is right concept that applies to figure below?

- a- Genomics  
b- The HapMap project  
c- The central dogma  
d- Sequencing the genome



65- Which correctly lists the following terms in order from smallest to largest: DNA, chromatin, chromosomes, nucleosomes?

- a- chromatin, chromosomes, DNA, nucleosomes  
b- chromosomes, DNA, chromatin, nucleosomes  
c- DNA, nucleosomes, chromatin, chromosomes  
D. nucleosomes, DNA, chromatin, chromosomes

66- If the genome represents the words in a dictionary, then the definition and usage of those words is represented by the \_\_\_\_\_.

- a- Haplotype                      b- chromosome  
c- DNA                              d- proteome

67- The large-scale study and cataloging of the structure and function of proteins in the human body is called .....

- a- Genomics                      b- proteomics                      c- Genes                      d- The central dogma

17	BIO.3.1.01.063 يصف عملية الاستقرار الداخلي المتعلقة بالمحافظة على الاتزان المائي والحار والحمضي-القاعدي ويشرح كيف تساعد هذه العمليات الأنظمة الجسدية على الاستجابة لكل من التغير في البيئة وآثار العلاجات الطبية	82 - 83
	BIO.3.1.01.063 Describes the process of homeostasis involved in maintaining water, heat, and acid-base homeostasis and explains how these processes help bodily systems respond to both change in the environment and the effects of medical treatments	82 - 83
18	BIO.3.1.01.062 يصف تشرح وفسولوجيا أجهزة الغدد الصماء والجهاز الإخراجي والجهاز العصبي ويشرح كيف تتفاعل هذه الأجهزة لتحافظ على الاتزان الداخلي	83
	BIO.3.1.01.062 Describe the endocrine, excretory, and nervous systems and explain how these systems interact to maintain homeostasis	83
19	BIO.3.1.01.063 يصف عملية الاستقرار الداخلي المتعلقة بالمحافظة على الاتزان المائي والحار والحمضي-القاعدي ويشرح كيف تساعد هذه العمليات الأنظمة الجسدية على الاستجابة لكل من التغير في البيئة وآثار العلاجات الطبية	83
	BIO.3.1.01.063 Describes the process of homeostasis involved in maintaining water, heat, and acid-base homeostasis and explains how these processes help bodily systems respond to both change in the environment and the effects of medical treatments	83

1- Which a gland that secretes the hormone thyroxine?

- a- Para thyroid gland                      b- Thyroid gland  
c- Pituitary gland                            d- Pancreas

2- Hormone causes cells of the body to have a higher rate of metabolism.

- a- Thyroxine                                      b- Calcitonin  
c- Testosterone                                  d- Parathyroid hormone

3- Which letter of the following refers to a gland that secretes the hormone thyroxine?

- A    B  
C    D

4- Which letter of the following refers to a gland that secretes the hormone Insulin?

- A    B  
C    E

The letter	The gland
A	Thyroid gland
B	Para thyroid gland
C	Adrenal ( the cortex)
D	Pituitary
E	Pancreas

5- Which pairs of hormones have opposite effects?

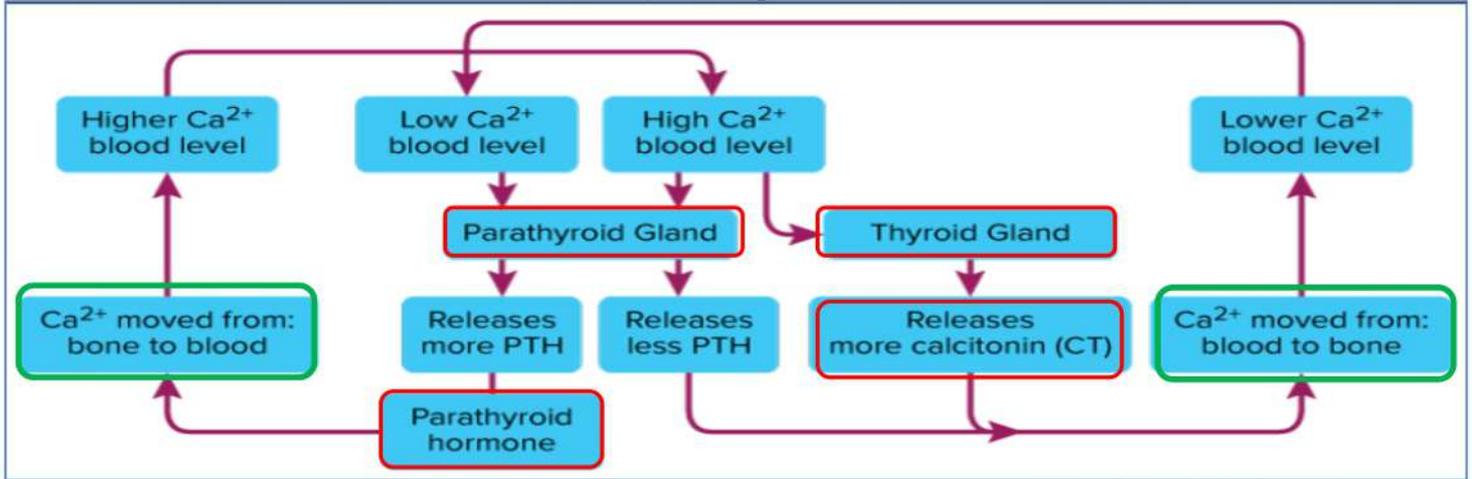
- a- Calcitonin and parathyroid hormone  
b- Epinephrine and norepinephrine  
c- Growth hormone and thyroxine  
d- Aldosterone and cortisol

6- Which hormone is released when high Ca<sup>+2</sup> blood level?

- a- Calcitonin                                      b- glucagon                                      c- Insulin    d- Estrogen

7- Which of the following Increase blood calcium level?

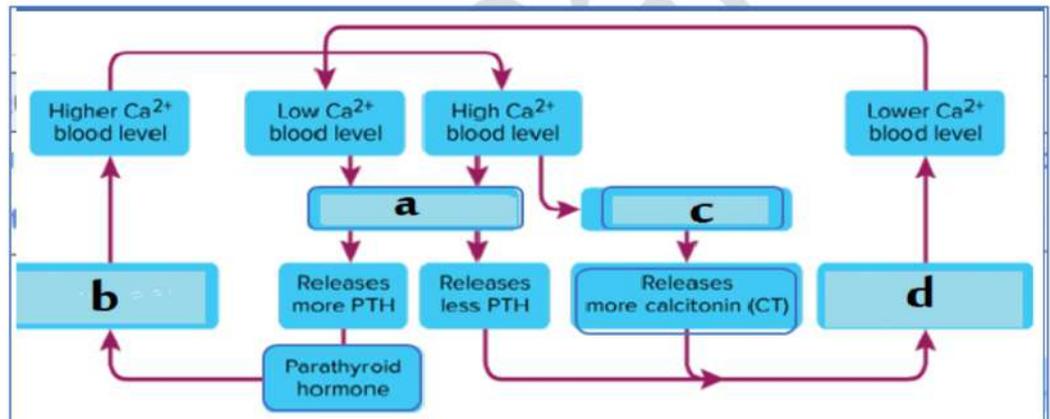
- a- Thyroxine                                      b- Calcitonin  
c- Testosterone                                  d- Parathyroid hormone



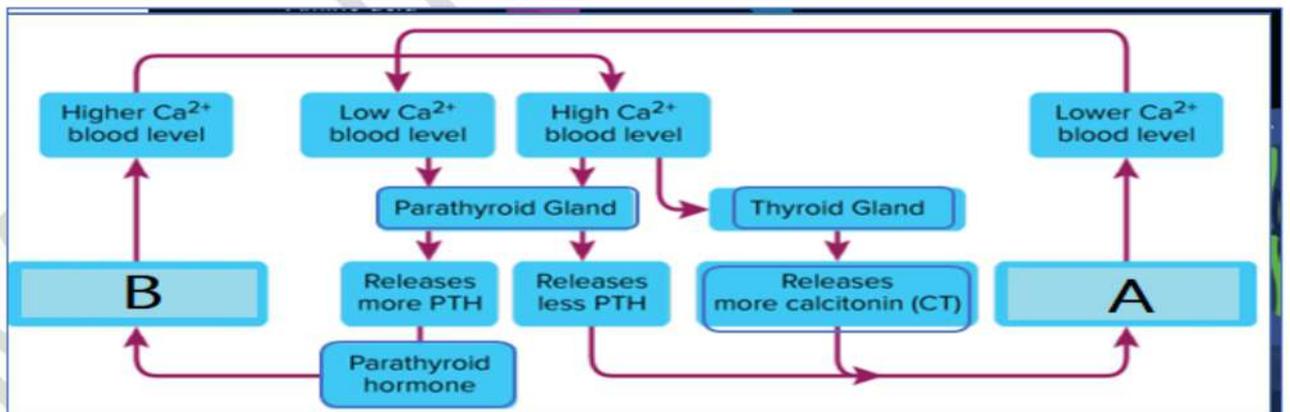
8- The figure below explains how negative feedback is important in maintaining homeostasis, Which of the following letters represents the parathyroid gland?

- a
- b
- c
- d

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9. In the figure below Parathyroid hormone (PTH) and calcitonin (CT) regulate the of calcium in the blood. Which of the following refers to the letter (A)?



- a-  $\text{Ca}^{2+}$  moves from the bone to blood.
- b-  $\text{Ca}^{2+}$  moves from the blood to the bone.
- c-  $\text{Ca}^{2+}$  moves from the thyroid gland to the spleen.
- d-  $\text{Ca}^{2+}$  moves from the spleen to the thyroid gland.

Mohamad Rajab

Mohamad Rajab



10- In the figure below Parathyroid hormone (PTH) and calcitonin (CT) regulate the of calcium in the blood. Which of the following refers to the letter (B)?

- a-  $\text{Ca}^{2+}$  moves from the bone to blood.
- b-  $\text{Ca}^{2+}$  moves from the blood to the bone.
- c-  $\text{Ca}^{2+}$  moves from the thyroid gland to the spleen.
- d-  $\text{Ca}^{2+}$  moves from the spleen to the thyroid gland.

	Injury rate	Age	occurs
Type 1 diabetes	20%	By age of 20	When body cannot produce insulin
Type 2 diabetes	70-80%	After age of 40	The cell of the body becoming insensitive to insulin

11- What is the effect of the body not producing enough insulin?

- a- Dwarfism
- b- Type 1 diabetes
- c- Type 2 diabetes
- d- Low calcium in the blood

12- Which pairs of hormones have opposite effects?

- a- Epinephrine and norepinephrine
- b- Growth hormone and thyroxine
- c- Insulin and glucagon
- d- Aldosterone and cortisol

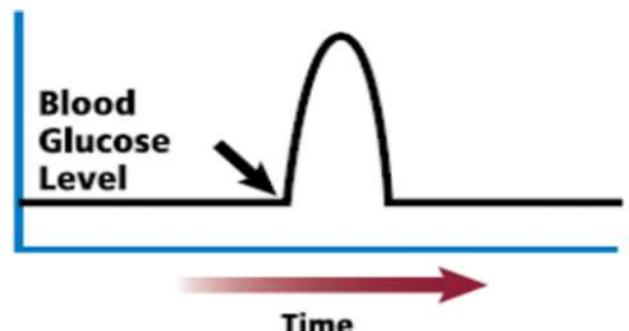
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13- What is the role of glucagon hormone?

- a- Increase blood glucose levels
- b- Converting glucose into glycogen
- c- lower blood glucose levels
- d- lower blood calcium levels

14- The graph below shows the blood glucose levels over a period of time. Which hormone might have caused a sudden sugar as indicated by the arrow?

- a- Antidiuretic hormone
- b- Growth hormone
- c- Insulin
- d- Glucagon

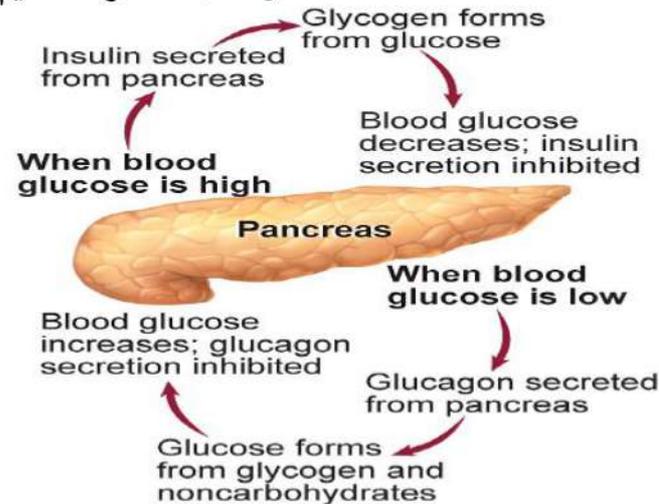


15- Which hormone is released when blood glucose is high?

- a- Calcitonin                      b- glucagon  
c- Insulin                            d- Estrogen

16- Which hormone is released when blood glucose is low?

- a- Calcitonin                      b- Glucagon  
c- Insulin                            d- Aldosterone



17- An endocrine gland located above the kidneys:

- a- Pituitary gland                      b- Pancreas gland  
c- Thyroid gland                      d- Adrenal gland

18- Which of the following is an example of Steroid Hormones?

- a- Insulin                              b-Growth hormone  
c- Aldosterone                      d-glucagon

19- Which of the following hormones secreted by the cortex of Adrenal glands?

- a- Glucagon                              b- Aldosterone  
c- Thyroxine                            d- Insulin

20- Which of the following of hormone affects the kidneys to reabsorbing sodium?

- a- Insulin                                b-Growth hormone  
c- Aldosterone                      d-Cortisol

21- Which of the following of hormone raises blood glucose level and reduces inflammation?

- a- Thyroxine                            b-Growth hormone  
c- Aldosterone                            d-Cortisol

22- Which person is likely to have high levels of epinephrine?

- a- Person A                              b- both person  
c- Person B                              d- nether person



A.



B.

23- Which endocrine gland would provide a burst energy to a person moving out of the way of a speeding bicycle?

- a- Parathyroid                      b- Pituitary                      c- Thyroid                      d- Adrenal

24- Which gland responds to a stressful situation by producing a hormone that increases heart rate, blood pressure, breathing rate, and blood sugar levels?

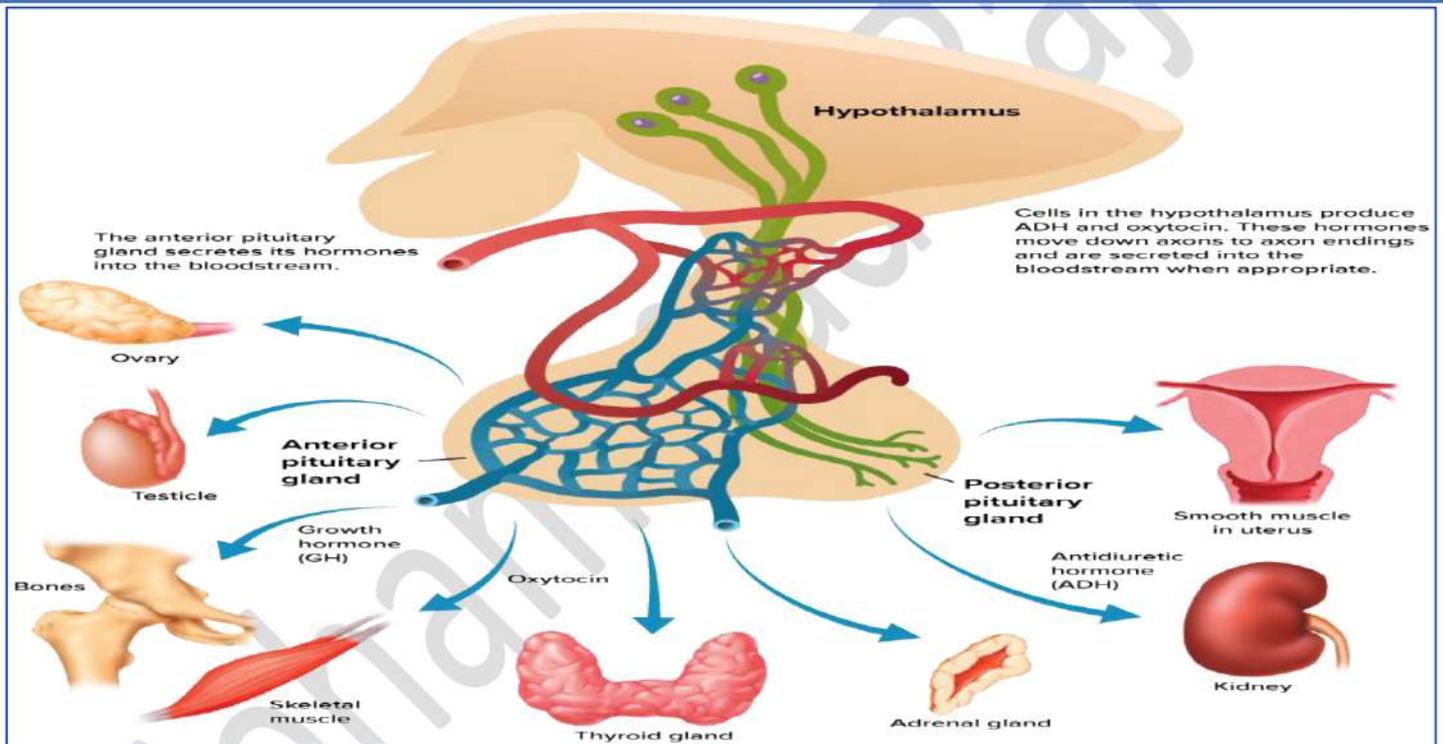
- a- adrenal gland                      b- hypothalamus  
c- parathyroid gland                d- pituitary gland

25- Which letter of the following refers to a gland that secretes the hormone Aldosterone?

- A                      B  
C                      D

The letter	The gland
A	Thyroid gland
B	Para thyroid gland
C	Adrenal ( the cortex)
D	Pituitary
E	Pancreas

20	يصف تشريح وفسولوجيا أجهزة الغدد الصماء والجهاز الإخراجي والجهاز العصبي ويشرح كيف تتفاعل هذه الأجهزة لتحافظ على الاتزان الداخلي	BIO.3.1.01.062	الشكل 19	84
	BIO.3.1.01.062 Describe the endocrine, excretory, and nervous systems and explain how these systems interact to maintain homeostasis			84

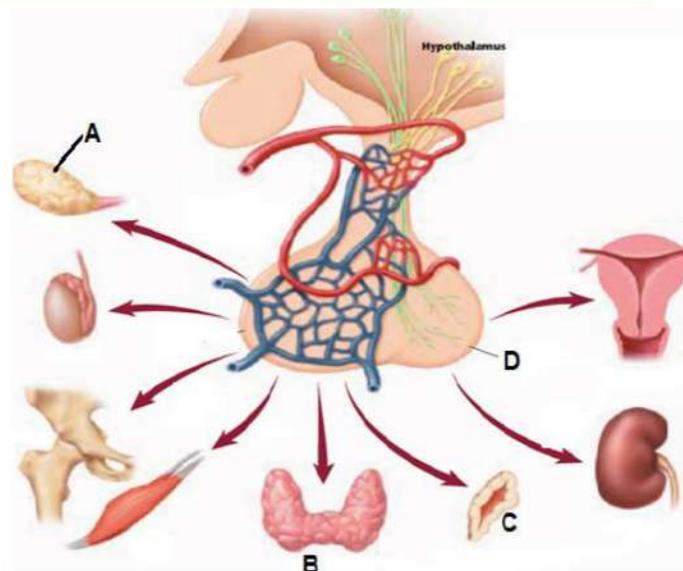


26- Which of the following letters represents the Adrenal gland in the below picture?

- A                      B                      C                      D

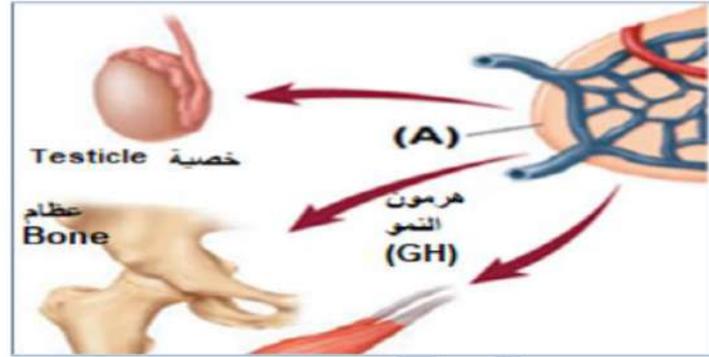
27- Which of the following letters represents the Thyroid gland in the below picture?

- A                      B  
C                      D



28- Which of the following is indicated by the structure (A) in the figure?

- a- Adrenal glands
- b- Posterior pituitary gland
- c- Anterior pituitary gland
- d- Hypothalamus



29- Which of the following serving as link between the Nervous System and The Endocrine System?

- a- Brain stem
- b- The hypothalamus
- c- liver
- d- Adrenal gland

30- Which of the following is gland secretes hormones that regulates the testes, ovaries, thyroid and adrenal glands?

- a- thyroid
- b- pituitary
- c- parathyroid
- d- adrenal

31- What are the hormones secreted by the hypothalamus (nerve cells rather than endocrine glands)?

- a- Aldosterone and cortisol
- b- Calcitonin and cortisol
- c- Estrogen and Growth hormone
- d- Antidiuretic hormone (ADH) and Oxytocin

=====

**With my sincere wishes for good luck and success**

**Teacher: Mohammad Rajab**