

نماذج تدريبية للصف الثالث الثانوي الأحياء باللغة الإنجليزية النموذج (10)

2025 - 2026

أولاً : الأسئلة الموضوعية (اختيار من متعدد) "كل سؤال من درجة واحدة"

1

Which of the following precipitations don't found in the living cells,?

- A) Cutin
- B) Cellulose
- C) Lignin and Subrin
- D) Cellulose and cutin

2

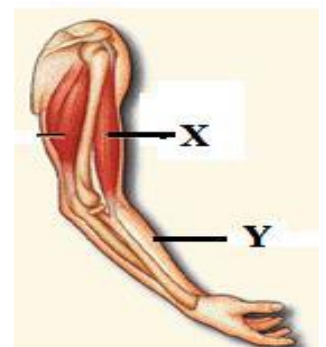
What is the benefit of the exercises performed by football players to strengthen the ligaments in the knee joint?

- A) Increasing the speed of contraction and relaxation of the thigh muscles and the gastrocnemius muscles
- B) Increasing the deposition of cartilaginous cells at the ends of the joint bones
- C) Increasing the thickness of the synovial fluid in the joint
- D) Increasing the ligaments' ability to bear the stress resulting from sudden joint movement

3

Which of the following is responsible for the contraction of muscle (X) and the movement of bone (Y), respectively

- A) Motor nerve – Ligament
- B) Sensory nerve – Tendon
- C) Motor nerve – Tendon
- D) Sensory nerve – Motor nerve



4

4-Which of the following is certain to occur as a result of a defect in the speed of neurotransmitter transmission across the neuromuscular junction due to low blood calcium?

- A) Transformation of the structure of synovial joints into cartilaginous joints to reduce the speed of movement
- B) Osteoporosis (Bone thinning) and increased exposure to bone fractures
- C) An increase in muscle contraction strength to compensate for this defect
- D) An imbalance between bone movement and muscle contraction, leading to stumbling while walking

5

A researcher conducted an experiment in which he cut the growing tip of a plant stem, then exposed the plant to a light source from one side. Which of the following explains the expected result of this experiment?

- A) The stem will continue to bend towards the light source, as auxins will move from the leaves.
- B) Growth will be stimulated completely, as auxins are responsible for growth
- C) The rate of bending will increase due to the absence of the inhibitory effect of auxins.
- D) No bending will occur because the growing tip is the main source of auxins

6

Which of the following glands is affected by both hormonal and nervous stimulation at the same time, but in its different structural parts?

- A) Thyroid gland
- B) Adrenal gland.
- C) Parathyroid glands
- D) Thymus gland

7 A person suffers from frequent urination and intense thirst. After conducting the necessary medical tests, it was found that he does not have diabetes mellitus.

What is the expected outcome if this person is prevented from drinking for several hours?

- A) Decreased ADH hormone levels in the blood and decreased urine concentration.
- B) Increased ADH hormone levels in the blood and increased urine concentration.
- C) Continued frequent urination and intense thirst.
- D) Increased aldosterone hormone secretion as a response to water loss.

A) Decreased ADH hormone levels in the blood

8 Which of the following cases does not result in the production of new individuals?

- A) Cutting the Fallopian tubes
- B) Cutting Hydra longitudinally
- C) Removal of both ovaries
- D) Removal of flower anther

9 Which of the following distinguishes reproduction by spores from reproduction by binary fission

- A) Produces genetically diverse individuals
- B) Occurs through meiosis
- C) Rapid dispersal and tolerance of harsh conditions
- D) Requires two parent individuals

10

Which of the following represents a similarity between both sexual reproduction by conjugation and sexual reproduction by gametes in Mammalia ?

- A) Type of participating cells
- B) Environmental conditions in which reproduction occurs
- C) Formation of a thick wall surrounding the formed zygote
- D) Formation of a (2n) zygote

.

11

Which of the following is correct regarding the polar nuclei in the plant ovule?

- A) Both have the same chromosomal number and differ in traits
- B) Both have the same chromosomal number and the same traits
- C) Different chromosomal number and similar in traits
- D) Different in chromosomal number and in traits

12

Which of the following is correct regarding the cells ready for division to form gametes in both the testis and the ovary

- A) They begin their work at puberty to produce gametes
- B) They begin with the first and second meiotic divisions at the same age
- C) The resulting cells from division have the same size
- D) The resulting cells from division have the same chromosomal number

13

Which of the following is considered the most important source of estrogen in a pregnant female in the middle of the second stage of pregnancy?

- A) The placenta
- B) Adrenal cortex
- C) The corpus luteum
- D) Uterine lining (endometrium)

14

What is the similarity between tylosis and ums in the defense mechanism?

- A) Both works to destroy the cell wall of the invading pathogen.
- B) Both are secreted as a response to infection.
- C) Both are composed of cellulose material.
- D) Both are considered an external secretion around the cut area

15

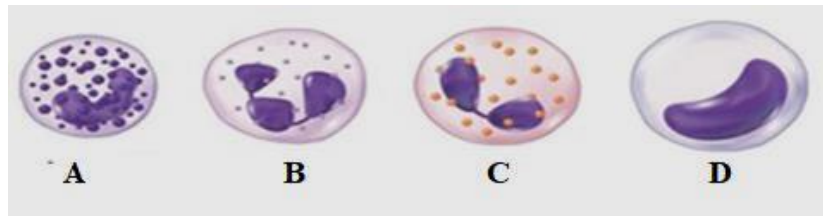
Which of the following is the most probable event to occur in a patient suffering from spleen removal due to an accident?

- A) Decrease in the number of helper T cells .
- B) Increased incidence to microbial infections .
- C) Inability to produce antibodies.
- D Failure in the formation of macrophages cells

16

Study the following figure, which represents some types of white blood cells in the human body. Then determine Which of the following immune cells play a role in activating blood vessels cells and their dilation in the inflammatory response?

- A) A
- B) B
- C) C
- D) D



17

Bacterial cells penetrated the human body and were recognized by antibodies, and after a short period their membrane ruptured and their components were released. What is the mechanism by which antibodies worked to eliminate these bacteria?

- A) Precipitation
- B) Lysis
- C) Neutralization
- D) Agglutination

18

18) DNA replication in a bacterial cell begins from points of attachment to the plasma membrane and occurs in both directions. What is the practical importance of that?

- A) Reducing the need for additional enzymes
- B) Preventing mutations during transcription
- C) Reducing the time required for replication
- D) Increasing the number of produced proteins

19

Which of the following is correct regarding a DNA molecule in prokaryotes?

- A) Single strand not double.
- B) Linear and covered with proteins.
- C) Double and divided into chromosomes.
- D) Annular and not linked with histones

20

When analyzing DNA in a bacterial cell, it was found that it contains an adenine (A) ratio = 30%. What is the expected ratio for guanine (G) in this molecule?

- A) 20%
- B) 40%
- C) 30%
- D) 60%

21

Which of the following represents the ratio between the number of different nitrogenous bases and the number of similar nitrogenous bases respectively in each of (DNA) and (RNA)?

- A) 1 : 2
- B) 3 : 1
- C) 1 : 3
- D) 5 : 8

22

Which of the following is considered the second codon in the mRNA molecule at the beginning of the translation process and not translated to methionine?

- A) GUC
- B) AUG
- C) UAA
- D) UAG

23

Which of the following nucleotide sequences on the DNA strand from which the codon that does not bind to the release factor is transcribed?

- A) ACT
- B) ATC
- C) ATT
- D) CAT

24

The permanent isostatic equilibrium in the Earth's crust is due to the difference in the density of:

- A) Sial to Sima
- B) Outer core to inner core
- C) Asthenosphere and Lithosphere
- D) Asthenosphere and solid mantle

25

What is the common geological factor in all types of unconformity surfaces?

- A) Highly inclined layers only
- B) Continuous deposition without stopping
- C) Stopping of deposition or erosion then Return to deposition
- D) Igneous interference between layers

26

Which of the following industries depends on a mineral that is not found in igneous rocks?

- A) Ceramics
- B) Pottery
- C) Glass
- D) Cement

27

A natural component whose composition is silicon dioxide, which of the following statements does not apply to it

- A) Its composition changes in metamorphic rocks
- B) It is found in gneiss rock
- C) It is produced from magma
- D) Its color changes with the presence of impurities

28

Which of the following is correct regarding a multi-colored mineral with a red streak

- A) It is used in the cement industry, and belongs to the carbonates group
- B) It is used in the iron and steel industry and belongs to the sulfides group
- C) It is used in painting on walls and belongs to the oxides group
- D) It is used in jewelry and ornamentation and belongs to the silicates group

29

A rock sample resulting from the transformation of granite, with a foliated texture, was analyzed. Which of the following conditions are the most likely for the formation of this sample

- A) Granite is exposed to severe pressure and high temperature without melting
- B) Granite is exposed to melting then slow cooling and crystallization
- C) Granite is exposed to weathering, deposition, and lithification
- D) Granite is exposed to complete transformation as a result of severe heat .

30

Which of the following statements explains the reason for the difference between intruded and surface igneous rocks despite their source being one?

- A) Complete difference in chemical composition
- B) Difference in cooling and pressure conditions
- C) Presence of minerals not found in the mantle
- D) Their formation in sedimentary environments

31

A geologist observed the presence of an igneous body with fine crystals parallel to horizontal sedimentary layers. Upon examination, he found a contact limit for metamorphic rocks below it and sedimentary rocks above it. What does this structure express?

- A) Parallel dike between sedimentary layers
- B) Intruded sills in sedimentary layers
- C) An ancient volcanic lava
- D) An ancient volcanic plug

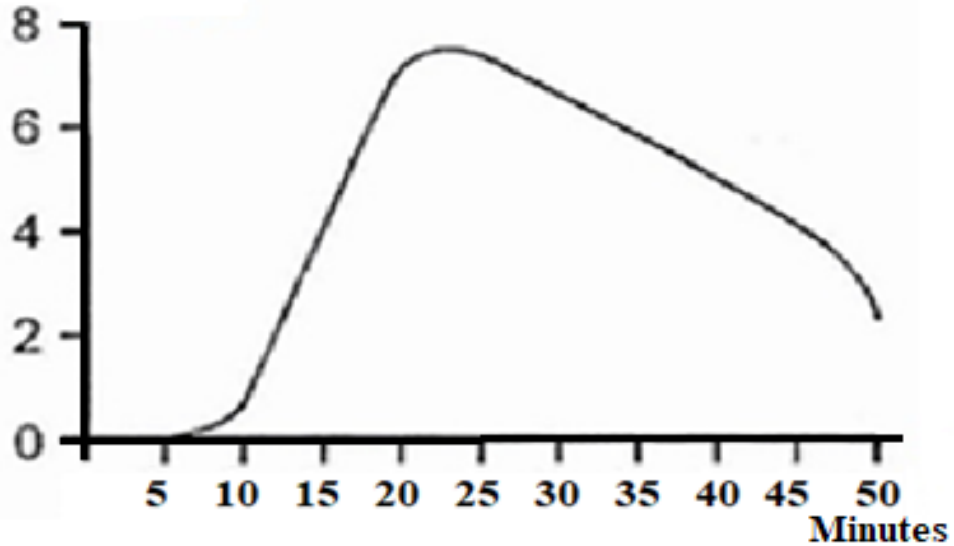
32

In a rock sample taken from the seabed, it was found that the rock is a sedimentary rock consisting mainly of the skeletal remains of micro-organisms (foraminifera) immersed in a fine muddy material. What is the most accurate classification for this rock and its depositional environment?

- A) Clastic rock: clay, sand, formed in a delta environment
- B) Chemical rock: dolomitic limestone, formed in a coastal environment
- C) Organic rock: organic limestone, formed in a deep, calm marine environment
- D) Organic rock: phosphatic limestone, formed in a shallow marine environment rich in nutrients

ثانياً : الأسئلة الموضوعية (الاختيار من متعدد) " كل سؤال من درجتين "

33

**Lactic acid
concentration**

The previous curve represents the concentration of lactic acid in the muscles of one of the athletes during a sports competition, study it then determine: Which of the following represents approximately the time at which muscle contraction occurred in this player leading to their stopping from movement?

- A) Minute 12
- B) Minute 23
- C) Minute 34
- D) Minute 50



34

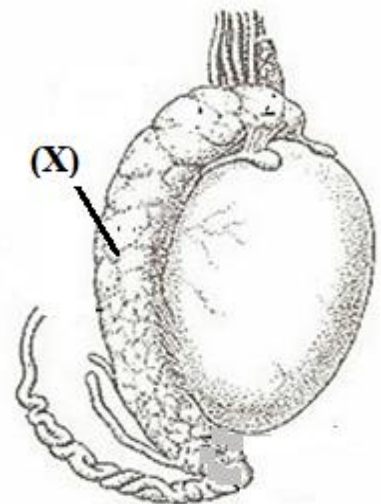
The previous image shows one person infected with a defect in the function of his thyroid gland. Which of the following symptoms does not appear on this person?

- A) Increased heart rate
- B) Decrease in body weight
- C) Obesity and hair fall
- D) Nervous irritability

35

The figure shows one of the male reproductive system organs in humans. Which of the following does not express the importance of having a large number of blood vessels in structure (X)?

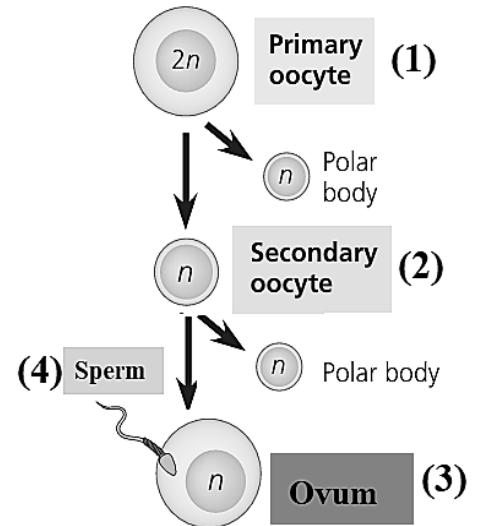
- A) Storing the sperm
- B) Transporting sexual hormones
- C) Regulating the temperature of the testis
- D) Producing testosterone hormone



36

In the opposite figure, which of the following cells contain in their nuclei the same number of chromosomes and DNA molecules?

- A) 1 and 3
- B) 3 and 4
- C) 1 and 3 and 4
- D) 2 and 3 and 5



37

A woman infected with MIDD disease (maternally inherited diabetes and deafness). It is a genetic disorder resulting from mutations in mitochondrial DNA. Which of the following is expected to be infected with the disease among the children of this woman?

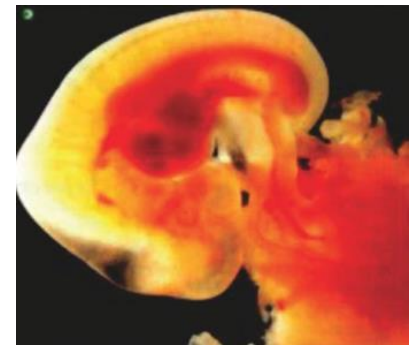
- A) Females only
- B) Males only
- C) All offspring
- D) Half of the males and half of the females

38

The opposite figure shows one of the stages of fetal growth in humans, study it then determines.

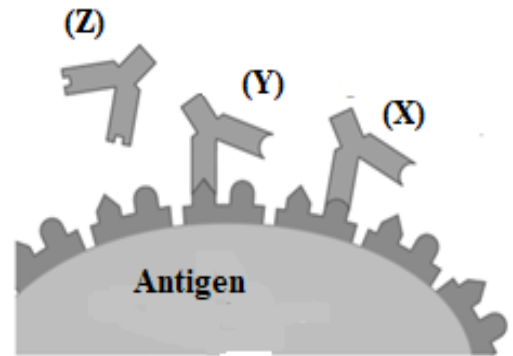
Which of the following does not characterize this fetus in this stage of fetal growth

- A) Fetus feeding via the placenta
- B) The heart begins the formation
- C) Possibility of distinguishing sex of the fetuses
- D) Beginning of the formation of the nervous system .



39

Which of the following antibodies shown in the figure had a defect in the formation of the protein that composes it?



- A) X
- B) Y
- C) Z
- D) Y and Z

40

In a laboratory experiment, helper T cells were removed from cultures containing immune cells. What is the expected result when an antigen is injected into these cultures?

- A) Increased antibody production
- B) Weakened B cell response
- C) Direct activation of Tc killer cells
- D) Occurrence of a secondary immune response

41

Which of the following explains the occurrence of induced mutations at a higher rate than spontaneous mutations

- A) Spontaneous mutations occur in sex cells only
- B) Cells respond to induced mutations over spontaneous ones
- C) Spontaneous mutations do not depend on enzymes
- D) External stimuli increase the chances of damage to nitrogenous bases

42

What is the type of mutation resulting from the exposure of human eggs to radiation, which led to an increased risk of birth of children with Down syndrome?

- A) Chromosomal Induced gamete mutation.
- B) Chromosomal Induced somatic mutation.
- C) Gene spontaneous gamete mutation.
- D) Gene spontaneous somatic mutation.

43

Which of the following statements summarizes the scientific importance of the "Non-coding DNA" regions that the Human Genome Project revealed?

- A) They have no function and should be ignored when studying diseases.
- B) They have regulatory functions that control time and how coding genes work .
- C) They are the only ones responsible for determining blood types in humans.
- D) They prevent any mutations from occurring in the body's essential genes

44

In a subsurface geological section, a normal fault was found with an angle of 12 degrees ,where the hanging wall block moved above the footwall block, and this fault cut across an anticline fold. Which of the following statements expresses the correct analysis of this section?

- A) The fault is normal and occurred before the formation of the fold as a result of tensional forces
- B) The fault is a reverse fault and occurred after the formation of the fold as a result of continuous compressional forces
- C) The fault is reverse and occurred before the formation of the fold as a result of compressional forces
- D) The fault is normal and occurred simultaneously with the formation of the fold as a result of tensional forces

ثالثاً: الأسئلة المقالية " كل سؤال من درجتين "

45

“Molecular technology represents a double-edged weapon in the field of food security”

Explain this statement by clarifying the role of genetically modified crops in facing climate change, and the potential risks in terms of positives and risks

.....

.....

.....

.....

.....

.....

46

A)

Compare between primary geological structures and tectonic geological structures in terms of concept and cause of formation

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

B)

"The timing of formation of primary structures differs from that of secondary structures relative to the age of the rock". Explain that

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

=====

إنتهت الأسئلة