

نماذج تدريبية للصف الثالث الثانوي الأحياء باللغة الإنجليزية النموذج (9)

2025 - 2026

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

1

Which of the following results from the fusion of all vertebrae of the vertebral column ?

- A) Head movement is affected
- B) Non protection of the spinal cord
- C) The body lose the support
- D) Variation in the number of vertebrae

2

When the lower part of the humerus bone is deformed, it causes dysfunction in movement of:

- A) the shoulder joint
- B) the elbow joint
- C) the clavicle
- D) the radius

3

Which of the following movements does not occur in bean plant?

- A) Phototropism
- B) Sleeping movement
- C) Pulling movement
- D) Continuous movement

4

During muscle spasm, muscle movement stops due to:

- A) stops myosin filament movement
- B) Stops actin filament movement
- C) Increases the length of the light zone
- D) Increases the length of the dark zone

5

Starling's experiments demonstrated that pancreatic follicular cells secrete:

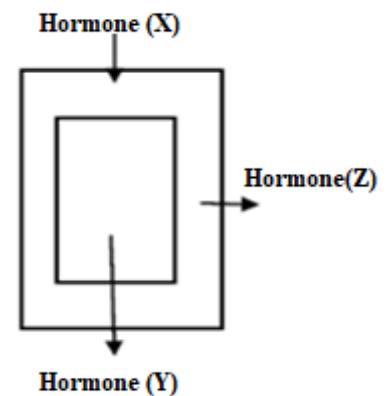
- A) Enzymes with both nervous and hormonal effects
- B) Hormones with both **nervous** and hormonal effects
- C) Enzymes and hormones with hormonal effects only
- D) Enzymes and hormones with neurogenic effects only

6

The diagram in front of you shows the structure of one of the endocrine glands in the human body.

Study it and then answer:

What is the most important characteristic of



- A) Its secretion is affected by the increase or decrease in the activity of the nervous system.
- B) Indirectly affects the function of the nervous system.
- C) It consists of complex protein.
- D) It is secreted during emergencies.

7

Which of the parts following glands directly affect the human kidney, and which indirectly affect it respectively?

- A) Nervous part of the pituitary gland – Glandular part of the pituitary gland
- B) Adrenal cortex – Nervous part of the pituitary gland
- C) Glandular part of the pituitary gland – Adrenal medulla
- D) Adrenal medulla – Adrenal cortex

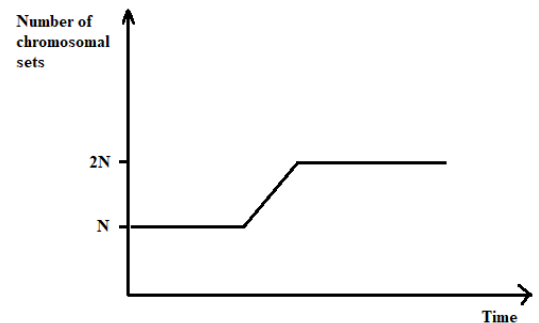
8

Which of the following is responsible for transmitting genetic characters from one generation to another?

- A) The nucleus of the placental cell
- B) The nucleus of the polar body
- C) The nucleus of the gamete cell
- D) The nucleus of the Sertoli cell

9

Which of the following are examples of sexual and asexual reproduction, as represented in the diagram, respectively?

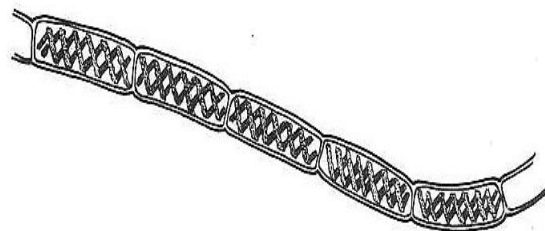


- A) Zygospore formation in conjugation - artificial parthenogenesis in star fish
- B) Zygospore formation in conjugation - tissue culture
- C) Females production in honey bee and males production in honey bee
- D) Budding in Yeast - binary fission in amoeba

10

How many new individuals are produced by the reproduction of the Spirogyra filament in front of you under suitable and unsuitable conditions, respectively (Considering the participation of all cells)?

- A) 5/2
- B) 5/1
- C) 1/5
- D) 2/5



11 Which of the following is a correct description of the term Gynoecium in the structure of a flower?

- A) The third whorl in onion flowers
- B) The fourth whorl in bean flowers
- C) The first whorl in date flowers
- D) The third whorl in pea flowers

12 Which of the following explains the presence of fructose sugar in the fluid secreted by the seminal vesicles instead of glucose?

- A) Fructose sugar produces double the energy produced by glucose sugar
- B) Fructose sugar does not require insulin to enter the sperm cell.
- C) Glucose sugar causes difficulty in the movement of sperm.
- D) Glucose sugar is more complex in chemical structure than fructose sugar

13 An egg cell from a female mouse (X) its nucleus had been replaced by the nucleus of a somatic cell from a male mouse (Y). The resulting blastocyst was then implanted into the uterus of a female mouse (Z).

What is the sex of the cloned mouse? And what is the source of the mitochondria in its cells?

- A) Male – Y
- B) Male – X
- C) Female – X
- D) Female – Z

14

Which of the following is from the system of acquired immunity?

- A) Detoxification enzymes in plants
- B) Payer's patches in the digestive tract
- C) Lymph nodes in humans
- D) Cutin in the epidermis of plants

15

Which of the following may formed after a microbe attacks a plant and toxic to the microbe?

- A) Detoxification enzymes
- B) Receptors
- C) Canaffinin
- D) Fungal mycelium

16

Bone marrow is a main component of the immune system because:

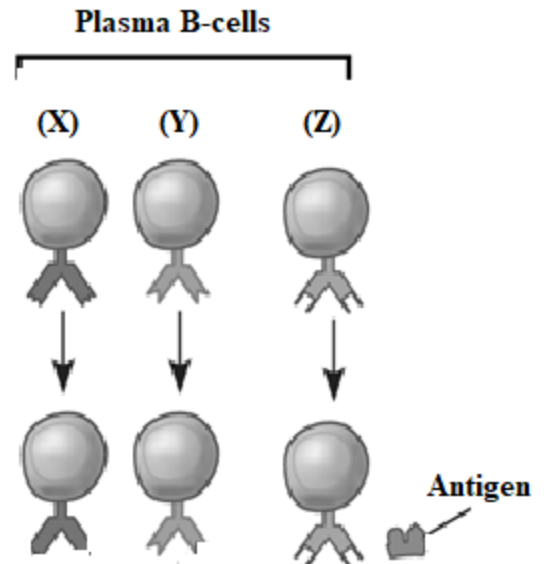
- A) It captures and eliminates foreign substances.
- B) It produces granulocytes and Agranulocytes.
- C) It produces and stores abnormal B cells.
- D) It produces and stores helper T- cells.

17

The diagram shows plasma cells producing antibodies.

Which of the following cell(s) can produce antibodies against this antigen?

- A) (Y) only
- B) (Z) only
- C) (X) and (Z)
- D) (X), (Y), and (Z)



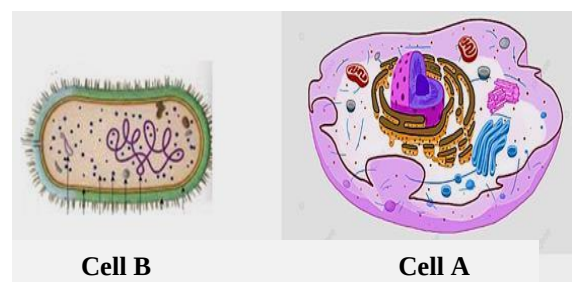
18

Which of the following results is true about Griffith's experiments?

- A) Protein is the carrier of genetic characters.
- B) The transformation factor can transfer characters from dead bacteria to alive ones.
- C) RNA is the carrier of genetic characters.
- D) Nucleotides are the building units of proteins.

19

Which of the following explains why DNA replication in Cell (A) takes longer than DNA replication in Cell (B)?



- A) DNA in Cell (B) is circular and does not require ligase enzyme during replication
- B) The presence of more replication points along the DNA molecule in Cell (A)
- C) The presence of more replication points along the DNA molecule in Cell (B).
- D) DNA in Cell (A) is circular and does not require ligase enzyme during replication.

20

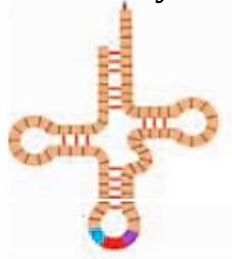
In the process of DNA repairing, it was found that some cells contain small fragments of DNA that do not fuse together.

What is the explanation for this?

- A) The primase enzyme Stopped working.
- B) The ligase enzyme Stopped working.
- C) Decreasing of free nucleotides.
- D) Increased activity of the helicase enzyme .

21

The diagram in front of you shows the types of RNA. Study it and then determine:



(A)



(B)



(C)

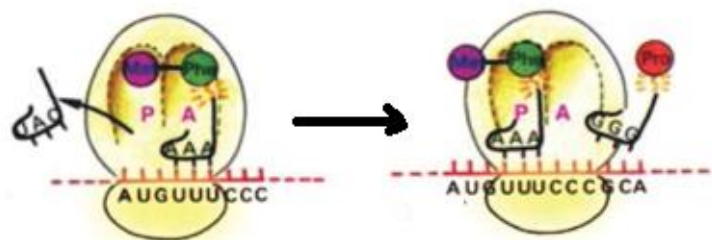
Which of the following is NOT true for the nucleic acid (A)?

- A) Contains hydrogen bonds between some of its nucleotides.
- B) Pairs with only one amino acid.
- C) Contains the anticodon AUU.
- D) Can be used to build more than one protein.

22

Which stage of protein synthesis does this diagram represent?

- A) Elongation stage
- B) Initiation stage
- C) Stop codon stage
- D) Polyribosome



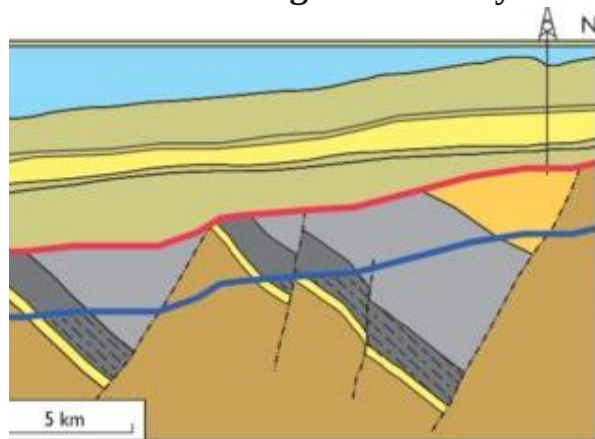
23

When comparing the nucleotide sequences of the insulin gene extracted from human pancreatic cells with a copy of the same gene produced using recombinant DNA technology, it was found that the original gene is much longer. What is the explanation for this difference?

- A) Some nitrogenous bases were deleted by the enzymes used in producing recombinant DNA.
- B) Recombinant DNA consists of a single strand, whereas the original gene is double-stranded.
- C) The gene in pancreatic cells contains non-coding regions that were removed during the formation of mRNA, from which the recombinant DNA was derived.
- D) The bacteria from which the gene was extracted cut out parts of it to protect themselves.

24

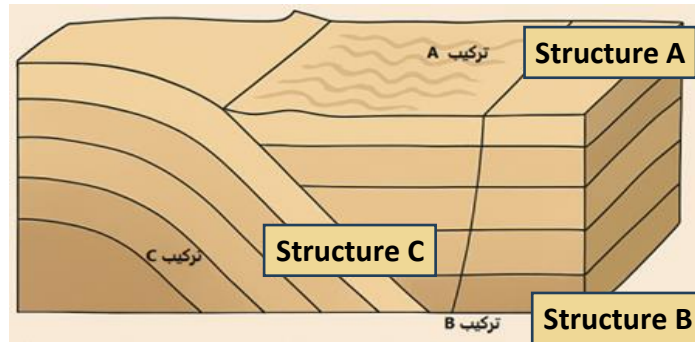
The geological structure in the diagram before you is considered:



- A) Normal fault - Secondary structure
- B) Anticline fold – Primary structure
- C) Graded bedding - Primary structure
- D) Joint - Secondary structure .

25

In the opposite figure, the geological structure (C) is distinguished from the geological structure (B) by that



- A) It is a tectonic-origin geological structure.
- B) It occurs as a result of a fracture in sedimentary layers.
- C) It results in decreasing in the horizontal area of the layers.
- D) The younger rocks are surrounded by older rocks.

26

Which of the following statements distinguishes Disconformity from angular unconformity?

- A) A clear erosion surface exists between two rock groups
- B) The layers above and below the erosion surface have different dip directions.
- C) The layers above and below the erosion surface have the same dip direction.
- D) The rocks below the erosion surface are igneous, and those above are sedimentary.

27 If you know that the relationship between the lengths of the crystal axes of a crystal is ($a \neq b \neq c$), and the relationship between the angles between the crystal axes is ($\alpha = \gamma = 90^\circ$) and the angle ($\beta = 105^\circ$), to which crystal system does this crystal belong?

- A) Monoclinic system
- B) Triclinic system
- C) Orthorhombic system
- D) Hexagonal system

28 Which of the following is incorrect about the element carbon?

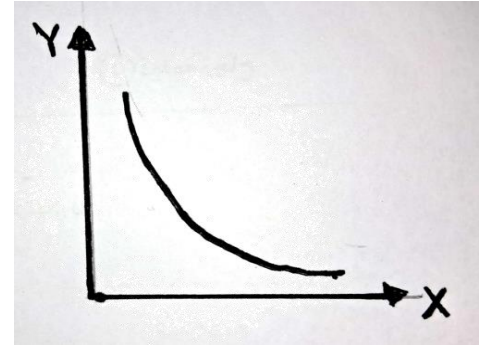
- A) A main element composing igneous silicate minerals
- B) Occurs as a native element mineral with basal cleavage
- C) The main component of organic coal deposits
- D) One of the elements of the calcite mineral

29 When a basic igneous rock is subjected to weathering and transport, and the resulting grains cement together, it forms a rock that is:

- A) Clastic sedimentary
- B) Basic igneous
- C) Massive metamorphic
- D) Porphyritic igneous

30

From your study of igneous rocks, which of the following represents X and Y in the diagram below?



- A) X = Iron percentage – Y = Sodium percentage
- B) X = Crystallization speed– Y = Silica percentage
- C) X = Crystallization temperature – Y = Crystal size
- D) X = Crystallization temperature – Y = Iron percentage

31

A geologist examined a rock sample under a microscope and found it to have a glassy, amorphous texture, contained trapped gas bubbles, and was dark in color. Which of the following statements correctly explains the origin of this rock?

- A) Formed at great depths within the Earth's crust as a result of the slow cooling of magma.
- B) Formed on the Earth's surface as a result of the rapid cooling of lava.
- C) Formed from the deposition and cementation of mineral grains transported by water.
- D) Formed from the transformation of other rocks under high pressure and temperature.

32

If it is found on a geological map a very large, irregularly shaped igneous body, exceeding 400 km^2 , and is supposed to be the source of a massive ancient magma, it is most likely: :

- A) Dykes
- B) Batholith
- C) Lopolith
- D) Laccolith

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

33

Which of the following its length is not affected by the action of calcium ions and ATP?

- A) (A) band
- B) (H) zone
- C) Sarcomere
- D) (I) band

34

Which of the following contain a one copy of the genetic material?

- A) Frog ova is exposed to radiation
- B) Ciliated sperms in polypodium
- C) Unfertilized ova of aphid insect
- D) Ookinete in Plasmodium malaria

35

Double fertilization in flowering plants is a necessary adaptation because:

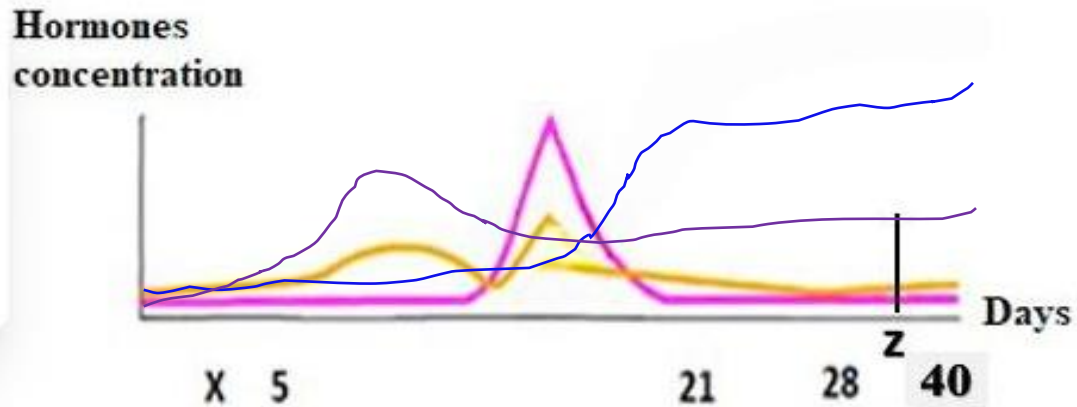
- A) To increase the number of seeds
- B) To ensure fruit formation.
- C) To ensure embryo nutrition
- D) To ensure embryo protection

36

What is the direct cause of pumpkin fruit production?

- a) large ovary size
- b) The effect of auxins due to pollination
- c) The fruit keeping its petals
- d) The occurrence of double fertilization

- 37 The following diagram illustrate the activity of sex hormones in a mammalian female study it and determine what will appear when examining a section within the ovary at (Z)?



- A) Fully developed Graafian follicle
- B) Primary oocyte
- C) Corpus luteum at its maximum growth
- D) Secondary oocytes

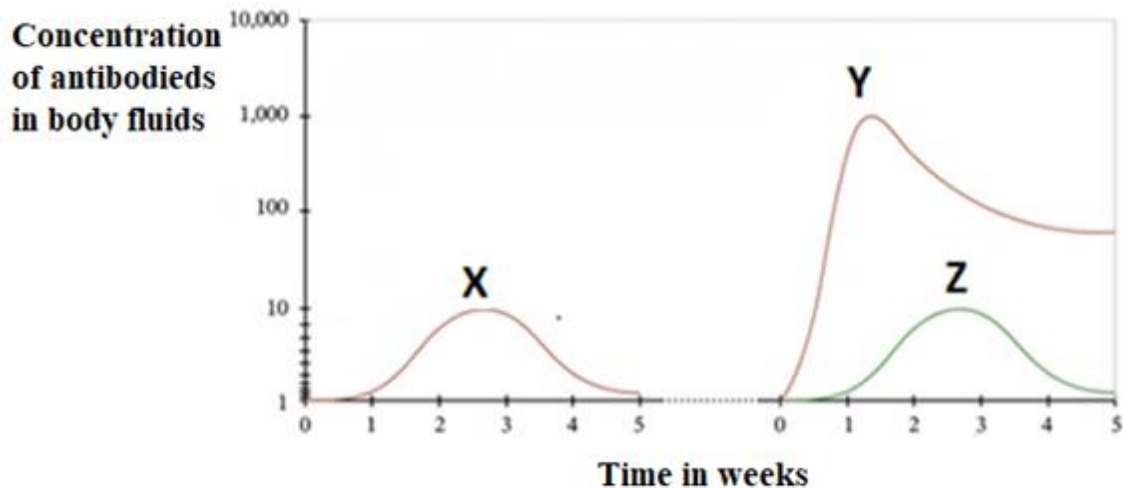
38

Some people are infected with a type of bacteria called *Helicobacter pylori* (stomach bacteria), which stay inside their stomach and causes significant damage.

Which of the following explains why it doesn't die and continues to live inside the stomach?

- A) The stomach stops producing hydrochloric acid.
- B) The resistant of this type of bacteria to the effect of hydrochloric acid.
- C) The presence of small amounts of antibodies in the stomach cavity
- D) Involuntary contraction of the smooth muscles in the stomach wall ceases.

39



The previous figure illustrates the relationship between the amount of antibodies in body fluids and the time elapsed after an individual's exposure to certain pathogens.

Note that curve (X) represents the amount of antibodies weeks after exposure to pathogen (A).

- A) ((Y) represents the second infection to another microbe
- B) (Z) represents the second infection to antigen (A)
- C) (Y) and (Z) represent the second infection to antigen (A)
- D) (Z) represents the first infection to another microbe

40

During DNA replication, an error occurred that led to the addition of a single base to the promoter of a specific gene. What is the expected effect of this change on the process of protein

- A) A protein with a different function is synthesized
- B) The translation process stops before the stop codon
- C) Transcription fails and no protein is produced from the beginning
- D) Only the first amino acid in the protein chain is changed

41 Which of the following statements is correct about DNA in eukaryotes and DNA in prokaryotes ?

- A) DNA in eukaryotes, it contains non-coding regions at the ends.
- B) DNA in prokaryotes is bound to histones.
- C) DNA in prokaryotes is located inside a nuclear membrane.
- D) DNA in eukaryotes, it does not contain free phosphate groups.

42 Which of the following, in order, indicates the enzymes used in the modern production of human insulin from bacteria?

- A) Restriction endonuclease - DNA polymerase - Reverse transcriptase - ligase
- B) Reverse transcriptase - DNA polymerase - Restriction endonuclease - ligase
- C) Reverse transcriptase - ligase - Restriction endonuclease - DNA polymerase
- D) DNA polymerase - Reverse transcriptase - Restriction endonuclease - ligase

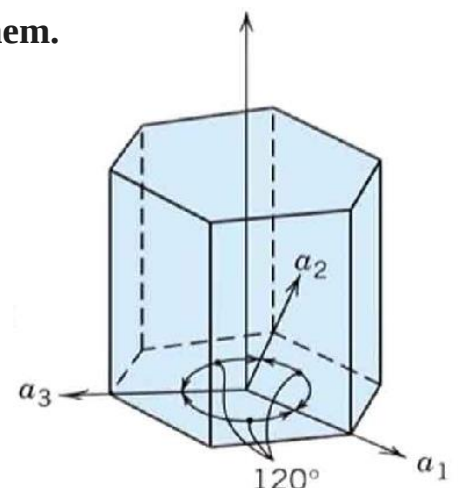
43 The cubic system is similar to the hexagonal system in:

- A) the number of equal axes
- B) the number of symmetrical plane
- C) the number of horizontal axes
- D) the values of equal angles

44 The figure opposite shows a crystal with three axes of equal length and a fourth axis that is longer and perpendicular to them.

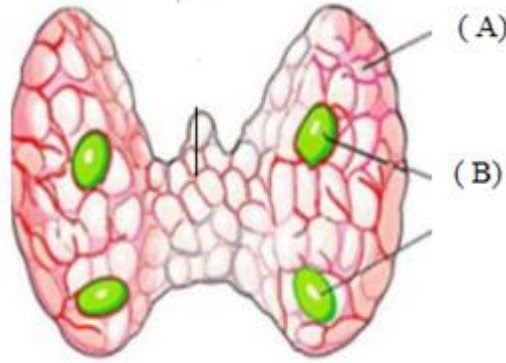
What crystal system does this crystal represent?

- A) Tetragonal
- B) Triclinic
- C) Hexagonal
- D) Cubical



ثالثاً: الأسئلة المقالية " كل سؤال من درجتين "

45



Based on the above diagram, answer the following:

a) What is the structure (A), and what stimulate its secretion?

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b) What is the structure (B), and what stimulate its secretion?

.....

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46

Person (X) was exposed to radiation from nuclear materials while working in an atomic research laboratory, resulting in a mutation in his skin cells. His colleague (Y) was also exposed to the same type of radiation, resulting a mutation in his reproductive cells.

a) Identify the type of mutation in both (X) and (Y). Explain your answer.

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b) Which of the mutations that occurred in both (X) and (Y) pose a risk to the species, and which of them poses a risk to the individual? Explain your answer.

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