

نماذج تدريبية للصف الثالث الثانوي

الأحياء باللغة الإنجليزية

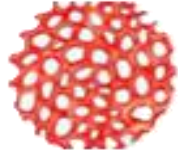
النموذج (٤)

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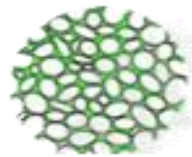
أولاً : الأسئلة الموضوعية (اختيار من متعدد) "كل سؤال من درجة واحدة"

1

Which one of the tissues shown in the figure supplies the plant with a structural support that reduces water loss **from the outer side of the plant** ?



(A)



(B)



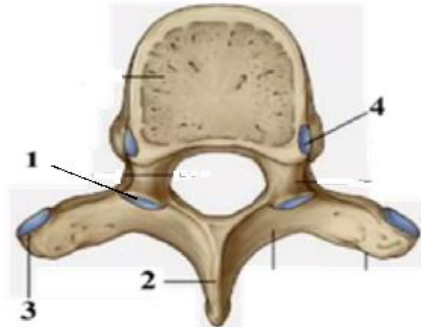
(C)

- A) A only
- B) B only
- C) C only
- D) A and B

2

In the opposite figure. Which of the labeled parts are articulating with the rib?

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



3

Which of the following types of movements in plant is not regulated by plant hormones?

- A) Pull movement by tendrils
- B) Touch movement
- C) Geotropism
- D) Phototropism

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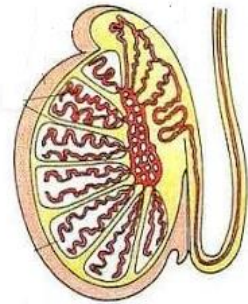
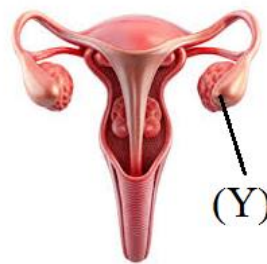
Sarcomere is a part of the myofibril that contains :

- A) 2 actin only regions – 2 actin and myosin regions – one myosin only region (at strong contraction)
- B) 2 actin only regions– one region of actin and myosin– no myosin only region (at strong contraction)
- C) 2 actin only regions – 2 actin and myosin regions – 2 myosin only regions (at relaxation)
- D) one actin only regions – one actin and myosin regions – one myosin only region (at relaxation)

5

The receptors of ADH hormone are found in:

- A) Kidneys only
- B) Artery walls only
- C) Kidneys and artery walls
- D) Smooth muscles and kidney



(X)

6

From the given diagram:

How does gland X differ from gland Y?

- A) Its endocrine structures
- B) Its hormones are secreted at puberty.
- C) Its activity ceases after a certain age
- D) Chemical classification of its hormones

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Which of the following hormones contain inorganic component in its chemical structure?

- A) Progesterone
- B) Thyroxin
- C) Aldosterone
- D) Insulin

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Mammalia is one of the highest living organism which reproduce sexually only but we can use a method of asexual reproduction to production of completely grown new individual with such as

- A) Cloning
- B) Artificial parthenogenesis
- C) Tissue culture
- D) Test tube babies

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Which of the following types of reproduction is the most energy consuming?

- A) Reproduction by gametes in Plasmodium
- B) Reproduction by fusion of gametes in bees
- C) Scalariform conjugation in Spirogyra
- D) Reproduction by gametes in rabbits

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The pollen tube plays a major role in:

- A) Delivering the male nuclei to the ovule.
- B) Stimulating the ovary to develop into fruit
- C) Delivering the tube nucleus and the generative nucleus to the embryo sac
- D) Delivering the pollen grain to the ovule to complete the fertilization process

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In date fruit, the part that transforms into the pericarp is:

- A) The ovary wall.
- B) The ovule integuments.
- C) The ovary wall and the ovule integuments.
- D) The outer ovule integument and the ovary wall.

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The thick muscular wall of the uterus is considered a functional adaptation because it:

- A) Helps accommodate, protect, and push the fetus during birth.
- B) Allows the blastocyst to be implanted and supply it with nutrients and oxygen.
- C) Contributes to the fertilization of eggs.
- D) Participates in the secretion of sex hormones.

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In extra-uterine fertilization, the embryo formation starts inside:

- A) Test tube
- B) Mother's uterus
- C) Test tube and the mother's uterus
- D) Test tube and a nutritive medium

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What is the plant tissue which plays a role in limiting the spread of microbes with water flow within the xylem vessels?

- A) Parenchyma
- B) Collenchyma
- C) Cork
- D) Epidermis

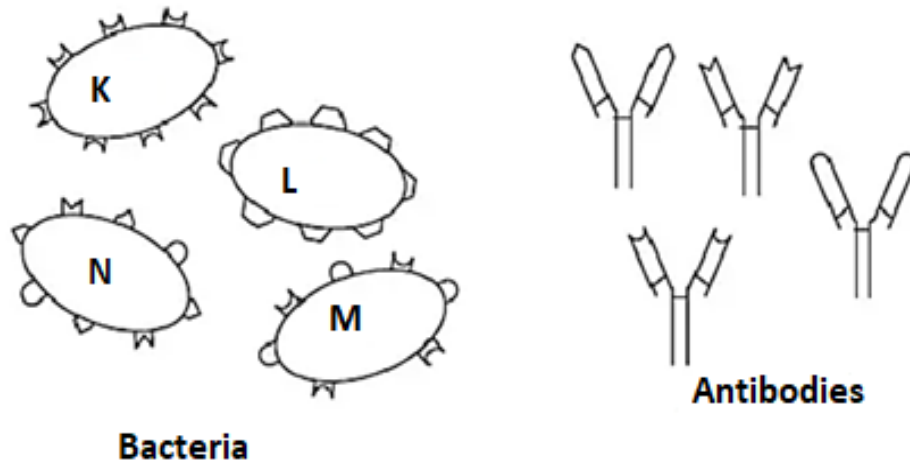
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Which of the following immune organs protects the beginning and end of the digestive tract?

- A) Spleen and Peyer's patches
- B) Thymus gland and salivary glands
- C) Tonsils and Peyer's patches
- D) Tonsils and stomach

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The following figures show bacteria isolated from a wound and a set of antibodies that were already present in a human body before the wound inflammation



The bacteria which most likely to cause the severe inflammation of the wound is.....

- A) K
- B) L
- C) M
- D) N

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Excessive production of innate immune system cells causes a type of blood cancer. In which tissues is such excessive production most likely to occur?

- A) bone marrow
- B) Thymus gland.
- C) bone marrow and thymus gland
- D) The blood.

18

Why the double helix of DNA has a regular diameter (width)?

- A) Because each base pair is 3 carbon rings wide.
- B) Because each base pair is anti-parallel.
- C) Because hydrogen bonds between base pairs have equal diameter.
- D) Because each base pair is two nitrogenous bases wide.

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How many primers are used during the replication of the lagging DNA strand?

- A) One
- B) A number equal to the number of genes
- C) A number equal to the number of Okazaki fragments
- D) An unlimited number

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In terms of its location, DNA in eukaryotes differs from that of prokaryotes because:

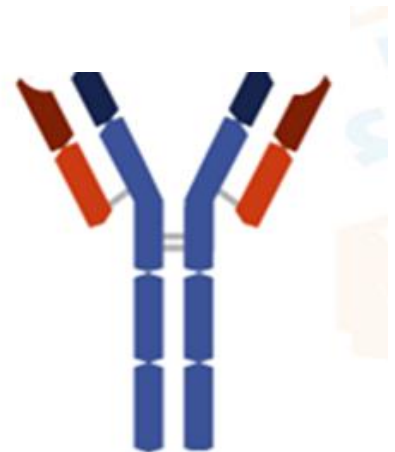
- A) Prokaryotes have DNA in their cytoplasm and plasma membrane only
- B) DNA in eukaryotes is located in the nucleus and some cytoplasmic organelles
- C) DNA in eukaryotes is located in mitochondria and plastids only.
- D) DNA in eukaryotes is located in the nucleus and all cytoplasmic organelles.

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Study the diagram then determine:

This protein is synthesized in the human body at ribosomes of:

- A) All body cells
- B) Granulocytic White blood cells
- C) Plasma B cells.
- D) B cells and plasma B cells.



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Which of the following is a difference between DNA and RNA?

- A) long unbranched macromolecules made up of nucleotide
- B) Basic chemical structure of their monomers
- C) Having a sugar-phosphate backbone
- D) The type of bonds between their monomers

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If the desired gene lies between two different recognition sites, which of the following is correct for joining this gene to a plasmid that contains the same two recognition sites?

- A) Add one type of restriction enzyme to both the gene and the plasmid.
- B) Add two types of restriction enzymes to the gene and one type to the plasmid.
- C) Add one type of restriction enzyme to the gene and two types to the plasmid.
- D) Adding two types of restriction enzymes to the gene and the plasmid

24

Which of the following is NOT important for geology science in everyday life?

- A) Exploring natural resources such as oil and minerals.
- B) Understanding Earth's history and the geological processes that have occurred within it.
- C) Utilization of groundwater in agriculture
- D) Predicting natural disasters such as earthquakes and volcanoes

25

As we move from the inner mantle to the inner core through the outer core, the physical state of matter changes from:

- A) Solid to Liquid to Solid
- B) Liquid to Solid to Liquid
- C) Solid to More solid to Liquid
- D) Plastic to Liquid to Solid

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The boundary surface between the basaltic lava flows and the oldest limestone layers that lie directly above it is considered as:

- A) Metamorphic rocks
- B) Angular unconformity
- C) Disconformity
- D) Nonconformity

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The compound mineral that forms one of the evaporate rocks and whose crystals are characterized by cubic cleavage and its three equal and perpendicular axes is:

- A) Halite
- B) Galena
- C) Quartz
- D) Flint

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Which of the following is a crystal system in which the angle β does not equal the angle α ?

- A) Monoclinic and Triclinic
- B) Cubic and Tetragonal
- C) Rhombic and Tetragonal
- D) Cubic and Rhombic

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Flint and quartz are similar in all of the following except:

- A) Mineral group
- B) Conchoidal fracture
- C) Occurrence in igneous rocks
- D) Inability to cleavage

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Which of the following is NOT true about the changes that occur to sedimentary and igneous rocks during metamorphism?

- A) Formation of new minerals.
- B) Change in rock texture.
- C) Change in crystal size.
- D) Change in chemical composition.

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You have two samples of igneous rocks, each with crystals of different sizes.

Sample 1: Contains crystals of the minerals olivine, pyroxene, and calcareous feldspar.

Sample 2: Contains crystals of pyroxene, quartz, feldspar, and mica.

From the above, it can be concluded that the two samples are, respectively, of the following rocks:

- A) Dolerite and microdiorite
- B) Gabbro and microdiorite
- C) Dolerite and diorite
- D) Basalt and andesite

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Solid remains of marine vertebrates contribute to the formation the rock of:

- A) Sandstone
- B) Coal
- C) Phosphate and limestone
- D) Sandstone and oil shale

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

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Which of the following is the direct stimulus that causes muscle contraction?

- A) The nerve impulse
- B) Calcium ions
- C) The neurotransmitter
- D) An external or an internal stimulus

34

When a person stops eating for extended periods, some hormones may increase while others decrease. Examples include, in order:

- A) Increased glucagon and decreased gastrin
- B) Increased ADH and decreased aldosterone
- C) Increased insulin and decreased glucagon
- D) Increased **insulin and decreased adrenaline**

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The ovule gets the food materials necessary for its formation from

- A) The funicle
- B) The ovary wall only
- C) The nucellus only
- D) The funicle and the ovary wall

36

The embryo of the seed may keep the endosperm if it:

- A) Has another source of nutrition
- B) Stores food in its cotyledons
- C) Didn't consume all of it during embryonic development
- D) Needs it during seed germination

37 All of the following cells in the human male body are haploid except:

- A) primary spermatocytes
- B) spermatids
- C) secondary spermatocytes
- D) sperms

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1. Plasma B cells.

2. Helper T cells.

3. Macrophages

4. B cells.

5. Memory B cells.

Which of the above cells can directly recognize antigen types?

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

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The compound resulted from binding of antigen with MHC is formed :

- A) On the membrane of the macrophage only
- B) In the cytoplasm of the B cells only
- C) On the membrane of macrophages and B cells
- D) In the cytoplasm of B lymphocytes and macrophages.

40

Which of the following explains the difference in genome size among eukaryotic organisms, even though the number of genes may be similar?

- A) Variation in the lengths of DNA molecules within the same organism
- B) Variation in the amount of non-coding DNA from one organism to another
- C) Variation in chromosome structure between species
- D) Variation in the types of DNA bases from one organism to another

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The Ancon strain of sheep is an example of:

- A) Induced desirable mutation
- B) Spontaneous desirable mutation
- C) Artificial undesirable mutation
- D) Natural undesirable mutation.

42

You have three types of RNA: X, Y, and Z.

(X) Contains hydrogen bonds between some of its nucleotides.

(Y) Binds to proteins to form one of the cell organelles.

(Z) Can bind to a large number of the organelles, which contains Y.

Which of the following represents the RNA lettered (X)?

- A) It carries the genetic code
- B) It binds to amino acids by hydrogen bonds
- C) It sometimes binds to nucleic acid (Z) by hydrogen bonds
- D) It always binds to the nucleic acid (Y) by hydrogen bonds.

43

Ancient sedimentary layers fractured and displaced by tensional forces, then covered by basaltic flow. The vertical geological section would show:

- A) Nonconformity
- B) Normal fault
- C) Disconformity
- D) Strike-slip fault

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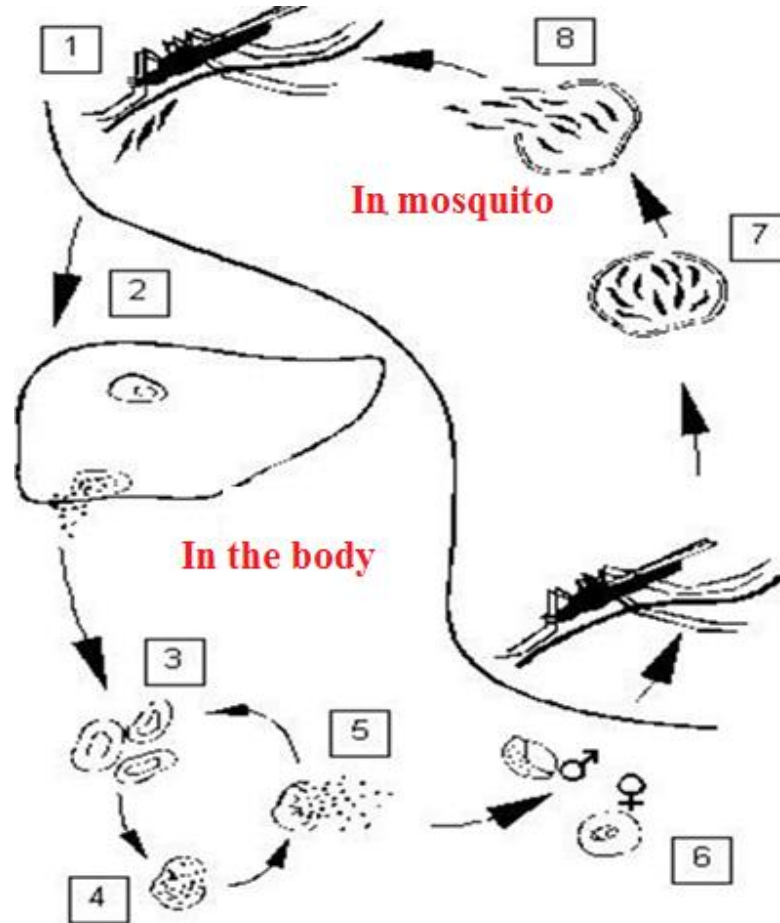
Which of the following igneous rocks forms directly on Earth's surface from the solidification of lava?

- A) Batholiths and lopoliths.
- B) Dikes and laccoliths.
- C) Pillows and volcanic cords.
- D) Domes and sills.

ثالثاً: الأسئلة المقالية " كل سؤال من درجتين "

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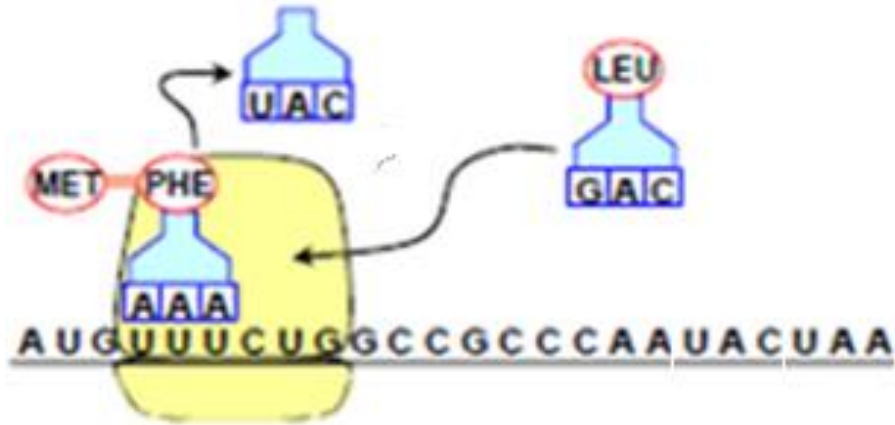
The diagram provided illustrates the life cycle of Plasmodium. Study it and then identify the number that corresponds to:



- A) The stage that leads to genetic diversity in the parasite
- B) The infective stage to humans
- C) The infective stage to mosquitoes
- D) The stage at which malaria symptoms appear

46

The illustrated diagram represents the process of protein synthesis.
Study it and then answer



A. Which stage of protein synthesis does this diagram represent?

.....
.....

B. Determine the number of amino acid types that are already translated in this diagram.

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إنتهت الأسئلة