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QUIZZES

Practice Test-1 (Ecosystem and Evolution)



10 Questions



7 min

Topics

Food chain, Food web, energy flow, Succession, Symbiosis (Mutualism, Commensalism, Parasitism, Predation), Biogeochemical Cycle (N₂ Cycle), Human Impacts on Environment, Acid Rain, Greenhouse effect, Ozone depletion, Algal blooms

SAEED MDCAT TEAM



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Start Quiz



2/10



7 min



Hint

Q : An aquarium is a:



Biome



Community



An ecosystem



An ornamental item

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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1/10



7 min



Hint

Q : A plant eaten by herbivorous animal which is eaten by a carnivorous animal can be described as:



Food web



Food chain



Food pyramid



Food cycle

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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4/10



7 min



Hint

Q : Competition for light, nutrients and space is much even in a:



Population



Community



Biome



Forest

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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3/10



7 min



Hint

Q : The stable community in ecological succession is:

A

Pioneer

B

Sere

C

Climax

D

Carnivores

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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6/10



7 min



Hint

Q : Interactions between the biotic components and physical component refer to:



Ecology



Environmental biology



Ecosystem



Biosphere

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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5/10



7 min



Hint

Q : Nitrogen fixing ability is not found in:



A Cyanobacteria



B Autotrophic bacteria



C Symbiotic bacteria



D Nitrifying bacteria

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06 : 50



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7/10



7 min



Hint

Q : Rock – cancer is caused by:



Greenhouse effect



Acid rains



Noise



Lead pollution

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SAEED MDCAT TEAM



SAEEDMDCAT

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8/10



7 min



Hint

Q : Greenhouse effect refers to:



A Warming of earth



B Desertification



C Cooling of earth



D Increased rainfall and greenery

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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9/10



7 min



Hint

Q : One molecule of CFC can decompose:



A One molecule of ozone



B 2-5 molecules of ozone



C 5-10 molecules of ozone



D Thousands of molecules of ozone

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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10/10



7 min



Hint

Q : Algal blooms are result in:

A

Global warming

B

Salination

C

Eutrophication

D

Bio-magnification

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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Correct

Unattempted



Incorrect



1/10

Q : A plant eaten by herbivorous animal which is eaten by a carnivorous animal can be described as:

A

Food web

B

Food chain

C

Food pyramid

D

Food cycle

SAEED MDCAT
Explanation

SAEED MDCAT TEAM



Plant

Producer



Insect

Herbivore/
Consumer



Mouse

Omnivore/
Consumer



Owl

Carnivore/
Consumer

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Correct



Unattempted



Incorrect



2/10

Q : An aquarium is a:



Biome



Community



An ecosystem



An ornamental item

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

An aquarium can be described as a closed artificial ecosystem in which fish and plants are able to find a habitat where they can grow and develop in a healthy and balanced way. Each aquarium must therefore be consciously designed, developed and managed to facilitate the establishment of the virtuous cycles that occur spontaneously in nature and give rise to the interactions.

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Correct



Unattempted



Incorrect



4/10

Q : Competition for light, nutrients and space is much even in a:



Population



Community



Biome

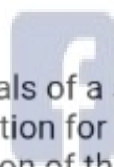


Forest

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Explanation

SAEED MDCAT TEAM



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Individuals of a same population present at a same place have competition for light, space, nutrients and space. It affects the size of population of that area.

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Correct



Unattempted



Incorrect



3/10

Q : The stable community in ecological succession is:



Pioneer



Sere



Climax



Carnivores

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

Climax community is more stable than all other successive communities like forest due to genetic diversity and diversity is different organisms.

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Correct



Unattempted



Incorrect



6/10

Q : Interactions between the biotic components and physical component refer to:



Ecology



Environmental biology



Ecosystem



Biosphere

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Explanation



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An ecosystem is a geographic area where plants, animals, and other organisms, as well as weather and landscape, work together to form a bubble of life.

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Correct



Unattempted



Incorrect



5/10

Q : Nitrogen fixing ability is not found in:



A Cyanobacteria



B Autotrophic bacteria



C Symbiotic bacteria



D Nitrifying bacteria

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

Nitrifying bacteria are responsible for the oxidation of ammonia or ammonium ions to nitrate, this process is called nitrification.

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Correct



Unattempted



Incorrect



7/10

Q : Rock – cancer is caused by:



A Greenhouse effect



B Acid rains



C Noise

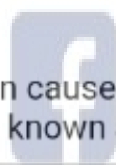


D Lead pollution

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Explanation

SAEED MDCAT TEAM



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Acid Rain causes extensive damage to buildings and stone structures which is known as stone/rock cancer.

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Correct



Unattempted



Incorrect



8/10

Q : Greenhouse effect refers to:



A

Warming of earth



B

Desertification



C

Cooling of earth



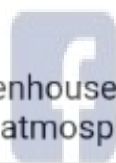
D

Increased rainfall and greenery

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Explanation

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The greenhouse effect is the process by which radiation from a planet's atmosphere warms the planet's surface.

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Correct



Unattempted



Incorrect



9/10

Q : One molecule of CFC can decompose:



One molecule of ozone



2-5 molecules of ozone



5-10 molecules of ozone



Thousands of molecules of ozone

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Explanation

SAEED MDCAT TEAM

CFC molecules are made up of chlorine, fluorine and carbon atoms. One molecule of CFC can decompose thousands of ozone molecules by converting it to molecular oxygen.

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Correct



Unattempted



Incorrect



10/10

Q : Algal blooms are result in:



Global warming



Salination



Eutrophication



Bio-magnification

SAEED MDCAT

Explanation

SAEED MDCAT TEAM



Eutrophication is a natural process of excessive enrichment of water with nutrients by which large amount of living organic matter grows in the water. Human activities accelerate eutrophication by adding mineral and organic nutrients in larger quantities than nature would provide as excreta and fertilizer

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QUIZZES

Practice Test-2 (Ecosystem and Evolution)



10 Questions



7 min

Topics

Concepts of Evolution, Evolution of eukaryotes from prokaryotes, Lamarckism

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Start Quiz

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1/10



7 min



Hint

Q : Theory of catastrophism was presented by:



Lyell



Malthus



Cuvier



Darwin

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06 : 56



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3/10



7 min



Hint

Q : Bacteria involved in evolution of flagella were:



Cocci



Spirochete



Bacilli



Spirogyra

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2/10



7 min



Hint

Q : Who developed a theory of natural selection essentially identical to Darwin's?

A

Hardy-Weinberg

B

Malthus

C

Alfred Wallace

D

Lyell

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SAEED MDCAT TEAM



SAEEDMDCAT

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5/10



7 min



Hint

Q : First comprehensive model that attempted to explain how life evolves was:

A

Vent hypothesis

B

Theory of special creation

C

Theory of inheritance of acquired characters

D

Theory of natural selection

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06 : 55



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4/10



7 min



Hint

Q : First organism evolve in:



Air



Land



Oceans



Ponds

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6/10



7 min



Hint

Q : Modifications, an organism acquires during its life time, can be passed along to its offspring is called as:



Origin of species



Inheritance of acquired characters



Law of natural selection



Principles of population

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06 : 52



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7/10



7 min



Hint

Q : Theory of inheritance of acquired characters was presented by:



Aristotle



Lamarck



Darwin



Wallace

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SAEEDMDCAT





8/10



7 min



Hint

Q : Theory of use and disuse of organs is:

A

Cuvier's theory

B

Lamarck's theory

C

Darwin's theory

D

Synthetic theory

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SAEED MDCAT TEAM



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06 : 47



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10/10



7 min



Hint

Q : All of the following are related to evolution except:



A Change over time



B Antibiotic resistance in bacteria



C Muscle hypertrophy



D Origin of new species

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9/10



7 min



Hint

Q : The base of Lamarckism is:

A

Selection

B

Effect of metabolism

C

Effect of environment

D

Isolation

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SAEEDMDCAT

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Correct



Unattempted



Incorrect



1/10

Q : Theory of catastrophism was presented by:



Lyell



Malthus



Cuvier

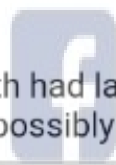


Darwin

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Explanation

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The Earth had largely been shaped by sudden, short-lived and violent events, possibly worldwide in scope.

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Correct



Unattempted



Incorrect



3/10

Q : Bacteria involved in evolution of flagella were:



Cocci



Spirochete



Bacilli



Spirogyra

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Explanation

SAEED MDCAT TEAM



SAEEDMDCAT

To make flagella prokaryotic amoeboid host cell engulfed spirochete bacteria and developed flagella on its body

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Correct



Unattempted



Incorrect



2/10

Q : Who developed a theory of natural selection essentially identical to Darwin's?



A Hardy-Weinberg



B Malthus



C Alfred Wallace



D Lyell

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

He sent his theory of natural selection to Darwin

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Correct



Unattempted



Incorrect



5/10

Q : First comprehensive model that attempted to explain how life evolves was:



Vent hypothesis



Theory of special creation



Theory of inheritance of acquired characters



Theory of natural selection

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Explanation



SAEEDMDCAT

Lamarck gave the first idea about the evolution in his theory.

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Correct



Unattempted



Incorrect



4/10

Q : First organism evolve in:



Air



Land



Oceans

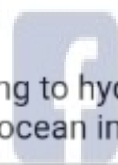


Ponds

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Explanation

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According to hydrothermal vent hypothesis, prokaryotic life starts deep in ocean in underwater hot springs called hydrothermal vents.

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Correct



Unattempted



Incorrect



7/10

Q : Theory of inheritance of acquired characters was presented by:



Aristotle



Lamarck



Darwin



Wallace

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

Darwin and Wallace worked on theory of evolution by natural selection. Aristotle recognized that organisms ranged from relatively simple to very complex structures.

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Correct



Unattempted



Incorrect



6/10

Q : Modifications, an organism acquires during its life time, can be passed along to its offspring is called as:



Origin of species



Inheritance of acquired characters



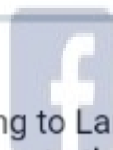
Law of natural selection



Principles of population

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Explanation



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According to Lamarckism organisms passes their acquired characters to the next generation as inheritance. This concept is not acceptable.

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Correct



Unattempted



Incorrect



9/10

Q : The base of Lamarckism is:



Selection



Effect of metabolism



Effect of environment



Isolation

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

Lamarck stated that giraffe stretch their neck for browsing purpose to overcome shortage of grass.

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Correct



Unattempted



Incorrect



8/10

Q : Theory of use and disuse of organs is:



A Cuvier's theory



B Lamarck's theory



C Darwin's theory



D Synthetic theory

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

Darwin and Wallace worked on theory of evolution by natural selection. Cuvier presented theory of catastrophism. The modern Synthetic theory of Evolution explains the evolution of life in terms of genetic changes occurring in the population that leads to the formation of new species.

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Correct



Unattempted



Incorrect



10/10

Q : All of the following are related to evolution except:



A Change over time



B Antibiotic resistance in bacteria



C Muscle hypertrophy



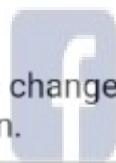
D Origin of new species

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Explanation

SAEED MDCAT TEAM

Somatic changes due to environmental factors are not due to evolution.



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QUIZZES

Practice Test-3 (Ecosystem and Evolution)



10 Questions



7 min

Topics

Darwanism, Evidences of Evolution

Start Quiz

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SAEED MDCAT TEAM



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06 : 59



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1/10



7 min



Hint

Q : Which of these represent exact sequence of these events?



3,2,4,1



3,1,4,2



4,2,1,3



2,1,3,4

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SAEED MDCAT TEAM



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06 : 57



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3/10



7 min



Hint

Q : Two main points of Darwin's theory of evolution are:



Origin of species, Descent with modification



Natural selection, adaptation



Struggle for existence, evolution



Descent with modification, Natural selection & adaptation

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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2/10



7 min



Hint

Q : Natural selection can operate on:



Variations



Non-heritable variations



Heritable variations



All A, B, C

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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6/10



7 min



Hint

Q : The most obvious visual evidence for evolution is:



Fossil record



Biogeography



Comparative anatomy



Comparative embryology

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SAEED MDCAT TEAM



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06 : 55



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5/10



7 min



Hint

Q : Scientist who first argued evolution with evidence was:



Aristotle



Darwin



Linnaeus



Lamarck

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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4/10



7 min



Hint

Q : An important turning point for evolutionary theory was birth of:

A

Cell biology

B

Modern genetics

C

Population ecology

D

Population genetics

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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7/10



7 min



Hint

Q : Which of the following is/are not analogous organs?



A Wings of birds and locust



B Wings of birds and pectoral fins of fish



C Wings of bat and butterfly



D Legs of frog and cockroach

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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8/10



7 min



Hint

Q : The presence of gill slits in the embryos of vertebrates support the theory of:



Metamorphosis



Organic evolution



Recapitulation



Biogenesis

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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10/10



7 min



Hint

Q : All organisms share the same genetic code. This commonality is evidence that:



A Evolution is occurring now



B Convergent evolution have occurred



C All organisms have descended from a common ancestor



D Evolution occurs gradually

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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9/10



7 min



Hint

Q : It is the study of evolutionary history of an organism:



A Ontogeny



B Taxonomy



C Phylogeny



D Embryology

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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Correct



Unattempted



Incorrect



1/10

Q : Which of these represent exact sequence of these events?



A 3,2,4,1



B 3,1,4,2



C 4,2,1,3



D 2,1,3,4

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Explanation

SAEED MDCAT TEAM

SAEEDMDCAT

Overproduction in a population leads to the competition for limited resources intra-specifically as well as inter-specifically which leads to evolution through natural selection.

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Incorrect



2/10

Q : Natural selection can operate on:



A Variations



B Non-heritable variations



C Heritable variations

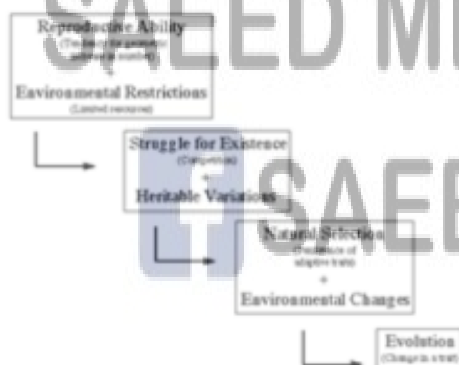


D All A, B, C

SAEED MDCAT

Explanation

SAEED MDCAT TEAM



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Correct



Unattempted



Incorrect



4/10

Q : An important turning point for evolutionary theory was birth of:



Cell biology



Modern genetics



Population ecology

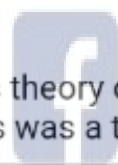


Population genetics

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Explanation

SAEED MDCAT TEAM



SAEEDMDCAT

Darwin's theory of evolution when collaborated with Mendelian genetics was a turning point and led to theory of Modern synthesis.

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Correct



Unattempted



Incorrect



3/10

Q : Two main points of Darwin's theory of evolution are:



A Origin of species, Descent with modification



B Natural selection, adaptation



C Struggle for existence, evolution



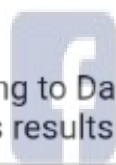
D Descent with modification, Natural selection & adaptation

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

According to Darwin, changes occurring at a slow rate with slight changes results in evolution with time.



SAEEDMDCAT

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Correct



Unattempted



Incorrect



6/10

Q : The most obvious visual evidence for evolution is:



Fossil record



Biogeography



Comparative anatomy



Comparative embryology

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

The record of the occurrence and evolution of living organisms through geological time as inferred from fossils

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Correct



Unattempted



Incorrect



5/10

Q : Scientist who first argued evolution with evidence was:



Aristotle



Darwin



Linnaeus



Lamarck

SAEED MDCAT

Explanation

SAEED MDCAT TEAM

Aristotle, Linnaeus and Lamarck presented vague ideas and philosophical logics of evolution without authentic proofs.

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Correct



Unattempted



Incorrect



7/10

Q : Which of the following is/are not analogous organs?



A Wings of birds and locust



B Wings of birds and pectoral fins of fish



C Wings of bat and butterfly

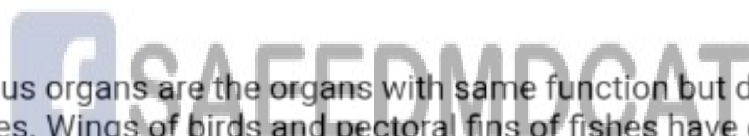


D Legs of frog and cockroach

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Explanation

SAEED MDCAT TEAM



Analogous organs are the organs with same function but different structures. Wings of birds and pectoral fins of fishes have different functions, hence they are not analogous.

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Correct



Unattempted



Incorrect



8/10

Q : The presence of gill slits in the embryos of vertebrates support the theory of:



Metamorphosis



Organic evolution



Recapitulation



Biogenesis

SAEED MDCAT

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

The development of an organism (ontogeny) expresses all the intermediate forms of its ancestors throughout evolution.

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Correct



Unattempted



Incorrect



10/10

Q : All organisms share the same genetic code. This commonality is evidence that:



A Evolution is occurring now



B Convergent evolution have occurred



C All organisms have descended from a common ancestor



D Evolution occurs gradually

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

Similarity in molecular make up of organisms is a very strong evidence for evolution.

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Correct



Unattempted



Incorrect



9/10

Q : It is the study of evolutionary history of an organism:



Ontogeny



Taxonomy



Phylogeny



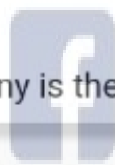
Embryology

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Explanation

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Phylogeny is the history of the evolution of a species or group.



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