



BIOLOGY

BOOKS - PREMIERS PUBLISHERS

ORIGIN AND EVOLUTION OF LIFE

Textbook Evaluation | Choose The Correct Answer

1. Biogenetic law states that

- A. Ontogeny and phylogeny go together
- B. Ontogeny recapitulates phylogeny
- C. Phylogeny recapitulates ontogeny
- D. There is no relationship between phylogeny and ontogeny

Answer: B



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2. The 'use and disuse theory' was proposed by_____.

A. Charles Darwin

B. Ernst Haeckel

C. Jean Baptiste Lamarck

D. Gregor Mendel

Answer: C



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3. Paleontologists deal with

A. Embryological evidences

B. Fossil evidences

C. Vestigial organ evidences

D. All the above

Answer: B



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4. The best way of direct dating fossils of recent origin is by.....

- A. Radio-carbon method
- B. Uranium lead method
- C. Potassium-argon method
- D. Both (a) and (c)

Answer: A



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5. The term Ethnobotany was coined by

...

A. Khorana

B. J.W. Harshberger

C. Ronald Ross

D. Hugo de Vries

Answer: B



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Textbook Evaluation II Fill In The Blanks

1. The characters developed by the animals during their life time, in response to the environmental changes are called



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2. The degenerated and non - functional organs found in an organism are called

..



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3. The forelimbs of bat and human are examples oforgans.



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4. The theory of natural selection for evolution was proposed by_____.



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Textbook Evaluation iii State True Of False Correct The False Statements

1. The use and misuse theory of organs' was postulated by Charles Darwin



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2. The homologous organs look similar and perform similar functions but they have different origin and developmental pattern.



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3. Birds have evolved from reptiles.



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Textbook Evaluation Iv Match The Following

1. Match the following columns

Column I		Column II	
A	Atavism	(i)	caudal vertebrae and vermiform appendix
B	Vestigial organs	(ii)	a forelimb of a cat and a bat's wing
C	Analogous organs	(iii)	rudimentary tail and thick hair on the body
D	Homologous organs	(iv)	a wing of a bat and a wing of an insect
E	Wood park	(v)	radiocarbon dating
F	W.F. Libby	(vi)	Thiruvakkarai



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Textbook Evaluation V Answer In A Word Or Sentence

1. A human hand, a front leg of a cat, a front flipper of a whale and a bat's wing look dissimilar and adapted for different functions.

What is the name given to these organs ?



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2. Which organism is considered to be the fossil bird ?



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3. What is the study of fossils called ?



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Textbook Evaluation Vi Short Answers Questions

1. The degenerated wing of a Kiwi is an acquired character. Why is it an acquired character?



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2. Why is Archaeopteryx considered to be a connecting link?



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3. Define Ethnobotany and write its importance.



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4. How can you find the age of fossils ?



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Textbook Evaluation Vii Long Answer Questions

1. Natural selection is a driving force for evolution-How ?



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2. How do you differentiate homologous organs from analogous organs?



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3. How does fossilization occurs in plants?



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Textbook Evaluation Viii Higher Order Thinking Skills Hots

1. Arun was playing in the garden. Suddenly he saw a dragon fly sitting on a plant. He observed the wings of it. He thought it looked similar to a wing of a crow. Is he correct? Give reason for your answer.



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2. Imprints of fossils tell us about evolution-

How ?



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3. Octopus, cockroach and frog all have eyes.

Can we group these animals together to

establish a common evolutionary origin. Justify

your answer.



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Other Important Questions Answers | Choose The Correct Answer

1. Life originated in:

A. Air

B. Earth

C. Water

D. Nitrogen

Answer:



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2. Believers of spontaneous generation theory

believed that:

- A. Life originated from similar organism
- B. Life originated from air
- C. Life originated only spontaneously
- D. Life originated from pre-existing life

Answer:



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3. Which of the following organ in man is not vestigial?

- A. Vermiform appendix
- B. Nictitating membrane
- C. Ear muscles
- D. Epiglottis

Answer:



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4. What are analogous organs?

- A. similar in origin
- B. similar in structure
- C. non functional
- D. similar in function

Answer:



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5. Wings of locust, pigeon and bat are example of:

- A. Vestigial organs
- B. Analogous organs
- C. Homologous organs
- D. Evolution

Answer:



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6. Book 'Philosophic Zoologique' published in the year 1809 was written by:

A. Darwin

B. Lamarck

C. Wallace

D. Mendal

Answer:



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7. Fossils are dated by:

A. Amount of calcium residue

B. Amount of radio active carbon
compound

C. Association with other mammals

D. Structure of bones

Answer:



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8. A basket of vegetables contains carrot, potato and tomato. Which of them represent the correct homologous structures?

A. Carrot and potato

B. Carrot and tomato

C. Radish and carrot

D. Radish and potato

Answer:



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9. Most fossil have been found in:

A. Black soil

B. Lava flows

C. Granite

D. Sedimentary rocks

Answer:



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10. Birbal sahni was a:

A. Zoologist

B. Founder of Central Drug Research
Institute

C. Ornithologist

D. Palaeobotanist

Answer:



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11. Darwin in his 'Natural Selection Theory' did not believe in any role of which one of the following in organic evolution.

A. Parasites and Predators as natural enemies

B. Survival of the fittest

C. Struggle for existence

D. Discontinuous Variation

Answer:



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12. Fossilization can occur in:

A. Animals are buried and preserved by natural process

B. Animals are destroyed by scavengers

C. Animals are eaten by predators

D. Animals are destroyed by environmental conditions

Answer:



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Other Important Questions Answers li Fill In The Blanks

1. Branch of biology which deal with fossils is

.....



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2. Archaeopteryx is the connecting link between



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3. Darwin explained origin of species through

.....



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4. The ship on which Darwin worked as naturalist was



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5. The book Origin of Species was published in the year



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6. Mutation can be artificially induced by



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7. Extraterrestrial states that units of life called





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8. The idea of Chemical Evolution of life was developed by_____.



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9. Living being able to reproduce more individuals and form the own progeny is called



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10. is the raw material which plays an important role in evolution.



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Other Important Questions Answers Iii Match The Following

1. Match the following columns

Column I		Column II	
A	Biogenetic law	(i)	Lamarckism
B	Archaeopteryx	(ii)	Recapitulation theory
C	Use and Disuse theory	(iii)	Traditional knowledge
D	H.M.S Beagle	(iv)	Fossil bird
E	Ethanobotany	(v)	Darwin



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Other Important Questions Answers Iv State Whether True Or False If False Write The Correct Statement

1. De Vries is called as the Father of Palaeontology.



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2. NASA is developing the Mars 2020 astrobiology to investigate an astrobiologically details of Mars.



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3. Competition among the individual of same species is Interspecific struggle.



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4. Abiogenesis theory states that life originates from pre-existing life.



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5. The big Bang theory explains the _____



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**Other Important Questions Answers V Answer In
A Word Or Sentence**

1. Who proposed the theory of Natural selection?



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2. What do you understand by evolution?



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3. How do embryological studies provide evidences for evolution?



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4. Mention three important features of fossils.



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5. Who is the Father of Indian Paleobotany?

What is his contribution in this field.



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6. Which is the most common methods of fossilization? Explain how it occurs.



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7. What are extremophiles?



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8. What is Goldilock zone for life. Name the planet in the Goldilock zone.



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9. What are the three types of struggle for existence?



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10. Write about Atavism.



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Other Important Questions Answers Vi Short Answer Questions

1. Distinguish between acquired and inherited trait with example.



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2. What are the aspects of ethnobotany?



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3. What is Geologic time scale.



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4. Write a note on types of Germinal Variation.



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5. Explain the existence for astro biology.



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Other Important Questions Answers Vii Long Answer Questions

1. Explain the various methods of Fossilization.



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2. Explain the principles of Lamarckian theory.



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Other Important Questions Answers Viii Higher Order Thinking Skills Hots

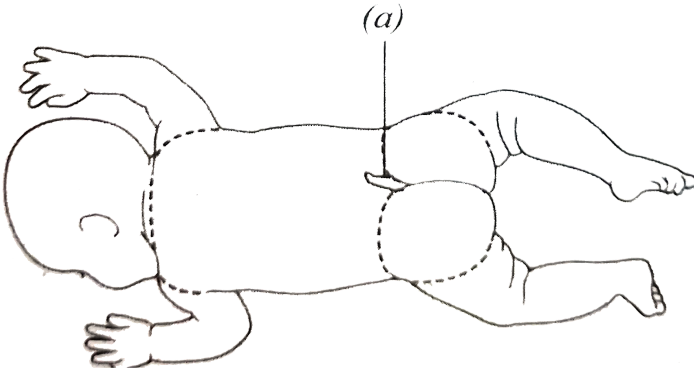
1. What is the reason for long neck of giraffe.

Name the theory based on this



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2. Picture of the new born baby to be given.



(i) Name the phenomenon responsible for the structure marked (a) in the Figure.

Give the definition of the phenomenon responsible for the development for the structure marked.



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