

# National Testing Agency

**Question Paper Name:** 5300 Advances in Animal Diversity and Systematics and Evolution 30th June 2019 Shift 2  
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## Advances in Animal Diversity and Systematics and Evolution

**Group Number :** 1  
**Group Id :** 489994216  
**Group Maximum Duration :** 0  
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## Advances in Animal Diversity and Systematics and Evolution

**Section Id :** 489994272  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 100  
**Number of Questions to be attempted:** 100  
**Section Marks:** 100  
**Display Number Panel:** Yes  
**Group All Questions:** No

**Sub-Section Number:** 1  
**Sub-Section Id:** 489994296  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Type of cellular organization in which many organisms do not undergo cellular division is called?

- A. Unicellular
- B. Multicellular
- C. Colonial
- D. Groups

**Options :**

1. 1
2. 2
3. 3
4. 4

**Question Number : 2 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Each distinct form of life or type of organism is called?

- A. Cell
- B. Domain
- C. System
- D. Species

**Options :**

1. 1
2. 2
3. 3
4. 4

**Question Number : 3 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Organizing similar species into larger groups is called?

- A. Natural Selection
- B. Homeostasis
- C. Classification
- D. Adaptation

**Options :**

1. 1
2. 2
3. 3
4. 4

**Question Number : 4 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The process by which organisms keep their internal conditions relatively stable is called?

- A. Homeostasis
- B. Evolution
- C. Reproduction
- D. Photosynthesis

**Options :**

1. 1
2. 2
3. 3
4. 4

Question Number : 5 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which list represents the levels of organization in a multicellular organism from the simplest level to the most complex level?

- A. Tissue, Cell, Organ System
- B. Organ System, Organ, Tissue, Cell
- C. Organ, Tissue, Organ System
- D. Cell, Tissue, Organ, Organ System

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 6 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The largest animal that ever existed on earth?

- A. Woolly mammoth
- B. African elephant
- C. Tyrannosaurus
- D. Blue Whale

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 7 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is the exclusive marine phylum?

- A. Echinodermata
- B. Porifera
- C. Cnidarians
- D. Protozoa

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 8 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the term for a localized group of organisms belonging to the same species?

- A. biosphere
- B. ecosystem
- C. population
- D. environment

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 9 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Acoelomates are characterized by?

- A. The absence of brain
- B. The absence of Mesoderm
- C. A solid body without a cavity surrounding internal organs
- D. A coelom that is not completely lined with mesoderm

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 10 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Marsupials and monotremes are characteristics of the?

- A. Oriental region
- B. Neotropical region
- C. Australian region
- D. Ethiopian region

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 11 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Wallace's line passes between

- A. Borneo and Celebes
- B. Bali and Lombok
- C. Oriental and Australian regions
- D. All the three

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 12 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does the diversity index take into account when measuring diversity?

- A. Richness
- B. Abundance
- C. Evenness
- D. All of these

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 13 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A country with many different types of habitat is said to have a high degree of what?

- A. Biodiversity
- B. Genetic diversity
- C. Species richness
- D. Habitat diversity

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 14 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is not a site for *in-situ* method of conservation of flora?

- A. Biosphere Reserve
- B. Botanical Garden
- C. National Park
- D. Wildlife

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 15 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is the largest lagoon lake of India and second largest lagoon lake of world after Lagoa das patos of South America?

- A. Vembanad Lake
- B. Kolleru Lake
- C. Pulicate
- D. Chilka Lake

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 16 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following places Royal Bengal Tiger found?

- A. Mahanadi Delta
- B. Kaveri Delta
- C. Godawari Delta
- D. Sunderban delta

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 17 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Yak (ox) and the Bharal are found in?

- A. Uttarakhand
- B. Himachal Pradesh
- C. Jammu and Kashmir
- D. Ladakh

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 18 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The breeding place of Flamingo (Hansawar) in India is most likely

- A. Runn of Kutch
- B. Ghana Vihar
- C. Sambhar lake
- D. Chilka lake

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 19 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When was the government of India had launched the Project Snow Leopard?

- A. 2000
- B. 2003
- C. 2009
- D. 2013

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 20 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following values of diversity we can classified for 'The beauty of waterfall in the Western Ghats'?

- A. Ethical values
- B. Social values
- C. Option values
- D. Aesthetic values

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 21 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Kingdom Archaea is included in which type of classification

- A. Two kingdom
- B. Four kingdom
- C. Five Kingdom
- D. Six kingdom

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 22 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The category of Nematode has been changed from class to.....:

- A. Kingdom
- B. Species
- C. Phylum
- D. Genus

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 23 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



Micrognathozoa is a:

- A. Phylum
- B. Species
- C. Kingdom
- D. Genus

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 24 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Classification of organisms based on evolutionary as well as genetic relationship is known as:

- A. Numerical Taxonomy
- B. Phenetics
- C. Biosystematics
- D. Cladistics

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 25 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Sympatric speciation in biological kingdom occurs due to:

- A. Geographic isolation
- B. Reproductive isolation
- C. Interbreeding
- D. Genetic isolation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 26 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Taxon is:

- A. Species
- B. Unit of classification
- C. Highest rank of classification
- D. Group of closely relate families

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 27 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The International Commission on Zoological Nomenclature was established in:

- A. 1895
- B. 1898
- C. 1758
- D. 1855

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 28 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The person who first describes a new species and gives it a name becomes:

- A. Author
- B. Authority
- C. Botanist
- D. Taxonomist

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 29 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When was the first need of assigning scientific names to organisms realized?

- A. 1842
- B. 1758
- C. 1898
- D. 1902

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 30 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

“Species is typologically distinct group of organism” is main theme of?

- A. Successional Species Concept
- B. Ecological Species Concept
- C. Morphological Species Concept
- D. Biological species concept

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 31 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following theory made a paradigm shift in progress of Species concept?

- A. Essentialism
- B. Lamarck Theory of Evolution
- C. Darwin's theory of Evolution
- D. Pheneticist Species concept

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 32 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a limitation of the Biological Species Concept?

- A. Paraspecies
- B. Sexual dimorphism
- C. Fossil Species
- D. Asexual organism

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 33 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

According to typological concept of Species two morphologically similar species are considered as?

- A. Same species
- B. Sibling Species
- C. Paraspecies
- D. Two different species

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 34 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If two morphologically different populations A and B occupy exactly same niche. According to Ecological species concept A and B are?

- A. Same species
- B. Sibling Species
- C. Paraspecies
- D. Two different species

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 35 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Lineage based species concept was given by

- A. de Queiroz
- B. Aristotle
- C. Darwin
- D. Mayer

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 36 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If two clones A and B have different genotypic cluster, then it is considered as species according to?

- A. Genic species Concept
- B. Biological Species Concept
- C. Cohesion Species Concept
- D. Genotypic cluster definition

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 37 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The word taxonomy is derived from which language

- A. Latin
- B. German
- C. Greek
- D. Russia

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 38 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Graphical representation of sequence comparison data for molecular taxonomy is called as

- A. cladogram
- B. dendrogram
- C. phylogram
- D. Clustering

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 39 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Method that can be followed for molecular taxonomy without amplification of DNA is?

- A. RAPD
- B. AFLP
- C. RFLP
- D. RT-PCR

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 40 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The first phylogenetic tree was made by

- A. Carolus Linnaeus
- B. Fitch and Margoliash
- C. Meyer
- D. Theophrastus

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 41 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Single Nucleotide Polymorphisms is only studied from

- A. the coding region
- B. non-coding region
- C. entire genome
- D. specific gene

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 42 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Microsatellites are

- A. sequence of the whole DNA
- B. the conserved sequence
- C. small repeated sequences on DNA
- D. DNA sequence monitored through satellite

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 43 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Single nucleotide polymorphism can be done using

- A. PCR
- B. Microchip array
- C. Fluorescent technology
- D. all

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 44 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

BOLD stands for?

- A. Barcode of Life Database System
- B. Birds Online Libraries Directory
- C. Barcode of Life science Database
- D. Barcoding of life database system

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 45 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the function of central unit in a node of an iBOL project?

- A. Helps in the bioinformatics analyses of the sequences submitted by the users of a particular node
- B. Helps in collection of specimens
- C. Acts as a repository of data on national level
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 46 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is incorrect regarding the advantages of Molecular data for phylogenetics study?

- A. Sampling bias is involved
- B. They are easier to obtain as compared to fossil records
- C. They are more numerous than fossil records
- D. More clear-cut and robust phylogenetic trees can be constructed with the molecular data

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4



Question Number : 47 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The correct sequence, from the most to the least comprehensive, of the taxonomic levels listed here is

- A. family, phylum, class, kingdom, order, species, and genus
- B. kingdom, phylum, class, order, family, genus, and species
- C. kingdom, phylum, order, class, family, genus, and species
- D. phylum, kingdom, order, class, species, family, and genus

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 48 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which kind of DNA should provide the best molecular clock for gauging the evolutionary relatedness of several species whose common ancestor became extinct billions of years ago?

- A. exonic DNA that codes for a non-crucial part of a polypeptide
- B. intronic DNA belonging to a gene whose product performs a crucial function
- C. paralogous DNA that has lost its function (i.e., no longer codes for functional gene product)
- D. that coding for ribosomal RNA

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 49 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The underlying premise of cladistics and phylogeny is that

- A. Taxa that share many homologous traits are more closely related than species that share few.
- B. The more recently that taxa have branched from a common ancestor the more similar should they be in morphology and in their DNA sequences
- C. Taxa that share many derived traits are likely to be most closely related.
- D. All of the above

**Options :**

1. 1
2. 2
3. 3
4. 4

**Question Number : 50 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Origin of Species was written by

- A. Oparin
- B. Darwin
- C. Lamarck
- D. Weismann

**Options :**

1. 1
2. 2
3. 3
4. 4

**Question Number : 51 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Evolutionary convergence is development of

- A. common set of characters in group of different ancestry
- B. dissimilar characters in closely related groups
- C. common set of characters in closely related groups
- D. random mating

**Options :**

1. 1
2. 2
3. 3
4. 4

**Question Number : 52 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Metapopulation model is different from logistic model population in

- A. Metapopulation model depends upon the relationship between density,  $N$  and carrying capacity
- B. Metapopulation model emphasize extinction-colonization dynamics
- C. Metapopulation models depend upon growth curve rates
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 53 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The length of time until all the population become extinct is referred as:

- A. Extinction colonization turns over event
- B. Metapopulation resistance time
- C. Rescue effect
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 54 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Sympatric speciation develops reproductive isolation without:

- A. Geographical barrier
- B. Barrier to mating
- C. Barrier to gene flow
- D. Genetic change

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 55 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Speciation occurs when a reproductive barrier is created by something other than geographical isolation:

- A. Sympatric speciation
- B. Allopatric speciation
- C. Parapatric speciation
- D. Polypatric

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 56 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Systematics is based on

- A. Successive information about organisms
- B. Relationship among organisms
- C. Both 1 and 2
- D. none

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 57 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

New age of animal systematics began with the analysis of

- A. 18 S rRNA
- B. 28 S rRNA
- C. 5 S rRNA
- D. 8 S rRNA

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 58 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one is the prominent synapomorphy among bilateria?

- A. Spiral cleavage
- B. Dipleurula larva
- C. Cephalization
- D. Hox and Parahox

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 59 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Two genes from different species having different functions are called

- A. Paralogues
- B. Analogous
- C. Orthologous
- D. Homologous

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 60 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is not required in Sanger's method?

- A. Primer
- B. DNA Polymerase
- C. dATP
- D. rNTP

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 61 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Computational method used for alignment of sequences is called

- A. Sequence analysis
- B. Dynamic programming algorithm
- C. Sanger's method
- D. PCR technique

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 62 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The conditions needed for origin of life

- A. Continuous supply of self producing molecules known as replicators
- B. Continuous supply of free energy
- C. Mutation of replicators
- D. All of above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 63 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Microspheres were experimentally synthesized in laboratory by

- (a) Urey and Muller
- (b) Francesco Redi
- (c) Sydney fox
- (d) Aristotle

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 64 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The approximate age of earth is

- (a)  $3.6 \times 10^6$  years
- (b)  $4.5 \times 10^6$  years
- (c)  $4.5 \times 10^9$  years
- (d)  $4.5 \times 10^8$  years

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 65 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Recently discovered only proteinous pathogenic particle is called

- (a) Virion
- (b) Protovirus
- (c) Prion
- (d) Protoprotein

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 66 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Speciation depends on the sum total of adaptive changes preserved by

- A. Natural Selection
- B. Isolation
- C. Human Conservation
- D. Environment

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 67 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The key to speciation is \_\_\_\_\_ of populations.

- A. Population Growth
- B. Reproductive Health
- C. Reproductive Isolation
- D. Extinction

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 68 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The reproductive isolating factor that occurs when individuals of a species mate at different times is referred to as?

- A. Ecological Isolation
- B. Behavioral Isolation
- C. Temporal Isolation
- D. Gametic Isolation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 69 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In same geographical region, if new species evolve from a single ancestral species than speciation is known as?

- A. Sympatric Speciation
- B. Allopatric Speciation
- C. Parapatric Speciation
- D. Speciation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 70 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical



Correct Marks : 1 Wrong Marks : 0

Which statement is correct about chromosomes of hybrid individual?

- A. Fail to Separate During Meiosis
- B. Fail to Form Gametes
- C. Form Defective Gametes
- D. All of These

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 71 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If organisms A, B, and C belong to the same class but to different orders and if organisms D, E, and F belong to the same order but to different families, which of the following pairs of organisms would be expected to show the greatest degree of structural homology?

- A. A and B
- B. A and C
- C. B and D
- D. D and F

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 72 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the eukaryotic condition arose, independently, several different times during evolutionary history, and if ancestors of these different lineages are extant and are classified in the domain Eukarya, then the domain Eukarya would be?

- A. paraphyletic
- B. polyphyletic
- C. monophyletic
- D. All are possible

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 73 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Clad grams (a type of phylogenetic tree) constructed from evidence from molecular systematics are based on similarities in?

- A. Morphology
- B. The Pattern of Embryological Development
- C. Biochemical Pathways
- D. Mutations to Homologous Genes

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 74 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which type of data sources are used for constructing phylogenetic trees?

- A. Fossils
- B. Morphological Data
- C. Molecular Data
- D. All of The Above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 75 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which taxon is defined as one that does not include the common ancestor of all members of the taxon?

- A. Monophyletic
- B. Paraphyletic
- C. Polyphyletic
- D. All Are Possible

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 76 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Eon, a unit of 'geological time' is equal to a

- A. Million years
- B. Billion years
- C. Trillion years
- D. Thousand years

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 77 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

'Clade' stands for

- A. Branch of the evolution tree
- B. Stem of the evolution tree
- C. Root of the evolution tree
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 78 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

An example of paraphyletic clade is:

- A. Mammals
- B. Reptiles
- C. Birds
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 79 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The distinction of species in a phylogenetic pattern in time is related to their distinction in:

- A. Contemporaneous organisms.
- B. Subsequent organisms
- C. Predecessor organisms
- D. Ancestors organisms

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 80 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Major reasons for most extinction is/are due to:

- A. A shrinking habitat due to ecstatic change in sea level
- B. Fluctuation of sea level due to plate movements
- C. Extinction of key members of the food-web becomes extinct
- D. All the three (a), (b) and (c)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 81 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The best example of Adaptive Radiation (a rapid evolutionary diversification of a single ancestral line) is:

- A. Darwin's Finches
- B. Ginkgoales
- C. *Lingula*
- D. Small Shelly Organisms

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 82 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A more complete title of Darwin's book was On the Origin of Species by Means of...

- A. Naive Selection
- B. Native Selection
- C. Natural Selection
- D. Natural Seduction

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 83 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following could NOT be considered an example of evolution?

- A. The fossil record suggests that the ancestors of whales once walked on land
- B. The common garter snake has developed a very high level of resistance to a toxin produced by one of its favorite prey, the rough-skinned newt
- C. Galapagos finches have different shaped beaks depending on what island they're from
- D. Pregnant women who survived the Dutch famine of 1944 gave birth to smaller than normal babies

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 84 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is true for *Homo sapiens*?

- A. Protruded mouth
- B. Cranial capacity of 1450 cc
- C. Omnivorous
- D. Developed chin

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 85 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Remains of Neanderthal man were found in neander valley of

- A. Germany
- B. France
- C. England
- D. Egypt

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 86 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following was the first to stand bipedal movement?

- A. Peking man
- B. Australopithecus
- C. Java man
- D. Cro magnon man

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 87 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Two genes having detectable sequence similarity present in the same species

- A. Homologous genes
- B. Paralogous genes
- C. Orthologous genes
- D. All of the above.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 88 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is an advantage of comparing nucleotide sequences over protein?

- A. The nucleotide sequence of a pair of homologous genes has more information than protein
- B. The mutation that occurs at the non-synonymous position does not affect protein
- C. Variability in coding and non-coding region can be detected.
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 89 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is clustering tool?

- A. BLAST
- B. SimiTri
- C. Clustar 3.0
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 90 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is correct?

- A. Expressed Sequence Tag are expressed part of the genome
- B. The genome contains only coding region
- C. BLAST is statistical tool
- D. Simitri is sequence comparison tool

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 91 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Why species diversity is important for the stability of ecosystem?

- A. Because populations of different species interact with their environment and perform several functions.
- B. These interactions directly contribute to the stability and ecological balance in the ecosystem.
- C. Loss of one species can affect several other species and can disturb the stability of the ecosystem.
- D. All of the above.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 92 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How increase in species diversity can affect ecosystem?

- A. Species diversity increases the efficiency and productivity of an ecosystem.
- B. It increases only the efficiency and not productivity of an ecosystem.
- C. It only increases the productivity of an ecosystem.
- D. It does not affect the efficiency and productivity of an ecosystem

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 93 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Name ecosystem services that provide benefits to humanity.

- A. Respiratory gases
- B. Food and water
- C. Medicines and natural fibres
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4



Question Number : 94 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is TRUE about the effect of trophic cascade on ecosystem?

- A. It has negative effect
- B. It has positive effect
- C. It is necessary for ecosystem stability
- D. It has no effect

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 95 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Why ecosystem services are important for sustainable development?

- A. Due to increase in human population
- B. Due to increase in populations of wild life
- C. Due to increase in forest area
- D. Due increase in animal populations

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 96 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Why are keystone species important to ecosystem functions?

- A. Because it is unique
- B. Because it is very important
- C. Because it controls the energy flow in a food web
- D. Because it shows interactions with other species

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 97 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is an invasive species?

- A. An invasive species is a non-native or exotic species of plant or animal.
- B. Such species are introduced either accidentally or deliberately in to an area.
- C. Such species can survive better in new conditions of the environment.
- D. All of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 98 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one is an invasive species in India?

- A. Elephants
- B. Peacock
- C. African apple snail
- D. Cobra snake

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 99 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What can be done to prevent threats from invasive species?

- A. To stop the introduction of exotic species from other region
- B. To kill the population of invasive species
- C. To remove the populations of local or endemic species
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

**Correct Marks : 1 Wrong Marks : 0**

What are the main causes of deforestation?

- A. Use of forest land for agricultural and other crops
- B. Use of forest land for human habitations, construction of roads etc
- C. Use of forest trees for timber and fuel
- D. All of the above

**Options :**

- 1. 1
- 2. 2
- 3. 3
- 4. 4