

SECTION 1 - SECTION 1

Question No.1

Population density is the

- number of individuals per species
- number of individuals per species per unit-area or volume
- number of species per community
- number of individuals per community

Question No.2

Who introduced the five kingdom system of biological classification?

- Robert H. Whittaker
- Copeland
- Linnaeus
- Ernst Meyer

Question No.3

The species inhabiting different geographical areas are

- Sympatric
- Morphospecies
- Sibling species
- Allopatric

Question No.4

The concept of genus was proposed by

- Bessey
- John Ray
- Hooker
- Tournefort

Question No.5

When the velocity of a moving object is doubled, its kinetic energy

- becomes doubled
- becomes three times
- becomes four times

- remains the same

Question No.6

A Topotype is a specimen

- Selected to serve as a substitute for the holotype
- Used by the second author
- Collected at the type locality
- Other than the holotype referred to in the original publication

Question No.7

Identify the correct match between the animal and its body cavity type

- Roundworm - Pseudocoelomate; Eartworm - Acoelomate; Flatworm - Coelomate
- Roundworm - Pseudocoelomate; Eartworm - Coelomate; Flatworm - Acoelomate
- Roundworm - Coelomate; Eartworm - Pseudocoelomate; Flatworm - Acoelomate
- . Roundworm - Acoelomate; Eartworm - Coelomate; Flatworm - Acoelomate

Question No.8

The branching pattern, that is, the order of the nodes is called

- the clade
- the morphology of the tree
- the topology of the tree
- the node

Question No.9

During which of the following major mass extinction events, over 95% of the marine species disappeared from the planet Earth?

- Devonian
- Permian
- Ordovician
- Triassic

Question No.10

Euphorbiaceae generally represents milky sap bearing plants but there are also some non-milky sap bearing plants that belong to this family. Identify the correct combination of the following given plants which belong to family Euphorbiaceae

- Mallotus philippense, Acalypha indica, Emblica officinalis*
- Terminalia bellirica, Euphorbia hirta, Nerium indicum*
- Acalypha indica, Ricinus communis, Mangifera indica*
- Mallotus philippense, Ficus religiosa, Ricinus communis*

Question No.11

The fungal epidemic led to what occurrence in the population?

- Founder effect
- Sympatric speciation
- Hardy Weinberg equilibrium
- Genetic drift

Question No.12

Six-Kingdom classification is based on the sequence of:

- Riosomal **RNA** genes
- Transfer **RNA** genes
- Nitrogenous bases in **DNA**
- Messenger **RNA** genes

Question No.13

Sympatric species resides in

- Same habitat
- Different geographical area
- Same geographical area
- Forest

Question No.14

What are the chief pollutants of the atmosphere which are most likely to deplete the ozone layer?

- Chlorofluorocarbons
- Carbon dioxide
- Carbon monoxide
- Sulphur dioxide

Question No.15

Darwin's finches are a good example of
Adaptive radiation

-
- Convergent evolution
- Connecting link
- Industrial melanism

Question No.16

Phylogeny describes a species

- Geographic distribution
- Evolutionary history
- Reproductive compatibilities with other species
- Morphological similarities with other species

Question No.17

When was 'Man and the Biosphere' programme launched by the **UNESCO**

- 1965
- 1971
- 1986
- 1968

Question No.18

Which of the following habitats show the highest diversity of living species?

- Desert
- Temperate forest
- Grassland
- Tropical rainforest

Question No.19

In Bloom taxonomy pyramid starts with knowledge end with evaluation, in between order of concepts goes as per

- Comprehension. Analysis, Synthesis, Application
- Comprehension. Application, Analysis, Synthesis,
- Application, Analysis, Synthesis, Comprehension.
- Analysis, Synthesis, Comprehension Application

Question No.20

Species which are able to exchange genes freely without loss of fertility or vigour is known as

- semispecies
- Ecospecies
- superspecies
- coenospecies

Question No.21

The correct sequence of taxa is

- Class-Order- Tribe -Family-Genus-Species
- Phylum-Order-Class-Tribe-Genus-Species
- Phylum-Tribe-Class-Order-Genus-Species
- Class-Order- Family- Tribe -Genus-Species

Question No.22

Bloom's taxonomy highlights the field of

- Education
- Science
- Medicine
- Culture

Question No.23

Which of the fungal groups has septate hyphae and reproduces asexually by budding, conidia and fragmentation?

- Basidiomycota
- Chytrids
- Glomeromycota
- Zygomycetes

Question No.24

Genetic variation can also be caused

- by genetic drift
- by gene duplication
- by gene flow
- by gene variation

Question No.25

The greenhouse effect is due to

- Penetrability of low wavelength radiations through CO₂
- Impermeability of long wavelength radiations through CO₂ of the atmosphere
- Impermeability of long wavelength radiations through O₃ layer
- Penetrability of low wavelength radiations through O₃ layer

Question No.26

Cellular level of organization is present in

- Paramecium
- Taenia
- Hydra
- Sycon

Question No.27

Binomials become trinomials when

- When the subspecies name is also indicated
- The name of the genus is changed
- The name of the species is changed
- The name of family is added

Question No.28

Pneumatic bones is an adaptation found in

- Amphibia
- Fishes
- Mammals
- Birds

Question No.29

Phylogenetic system brings about:

- Reproductive similarities with other species
- Grouping on the basis of increasing complexities
- Grouping according to evolutionary trends
- Grouping according to morphological characters

Question No.30

Endemism

is the ecological state of a species being unique to a defined habitat,

- such as an island, nation, country or other defined zone, or habitat type
- is the another form of native species
- is the another form of non-native species
- is the ecological state of a species being unique to a defined geographic location, such as an island, nation, country or other defined zone, or habitat type

Question No.31

Name of the reptile with flight adaptations

- Varanus
- Chameleon
- Uromastix
- Draco

Question No.32

While most of the Platyhelminthes are free living or endoparasites, which one of the following taxa has an ectoparasitic life cycle?

- Cestoda
- Monogenea
- Turbellaria
- Trematoda

Question No.33

Conservation is

- Management of natural resources
- Proper use of natural resources
- Protection of natural resources
- Unmindfulness of natural resources

Question No.34

Zoological name of Honey bee is

- Laccifer lacca
- Lepisma indica
- Bombyx mori
- Apis indica

Question No.35

Given below are some properties related to botanical and zoological nomenclature

A. Absence of tautonyms

B. Presence of genus, species ranks only

C. Presence of only holotype and neotype

Select the correct combination that distinguishes botanical from zoological nomenclature system

- A, B and D
- A, B and C
- A and C only
- A, C and D

Question No.36



The term "Taxonomy" was first proposed by the French Botanist:

- Lamarck
- De Candolle
- Linnaeus
- Nageli

Question No.37



The central legislative measures called 'Wildlife (Protection) Act' was passed in

- 1951
- 1972
- 1977
- 1980

Question No.38



The phylum in which the larvae are bilaterally symmetrical and adult is radially symmetrical

- Mollusca
- Echinodermata
- Nematoda
- Coelenterata

Question No.39



- A-Snakes, B-Turtles, C-Birds, D- Mammals
- A-Snakes, B-Turtles, C-Mammals, D- Birds

- A-Birds, B-Turtles, C-Snakes, D- Mammals
- A-Turtles, B-Birds, C-Snakes, D- Mammals

Question No.40

Which is not included in key elements of biodiversity

- Genetic diversity
- Forest diversity
- Organismal diversity
- Ecological diversity

Question No.41



- A. - (iii) B - (i) C - (v) D - (iv) E - (ii)
- A. - (i) B - (ii) C - (iii) D - (iv) E - (v)
- A. - (iv) B - (iii) C - (ii) D - (i) E - (v)
- A. - (iii) B - (v) C - (i) D - (iv) E - (ii)

Question No.42

Species is

- Specific class of evolution
- Specific unit of evolution
- Specific unit of the evolutionary
- History of a race

Question No.43

The animals belonging to phylum Echinodermata are

- Marine
- Aerial
- Fresh water
- Terrestrial

Question No.44

Hunting of crocodiles was legally banned in India in the year

- 1973
- 1975

- 1967
- 1971

Question No.45



- (i), (ii), (iii)
- (ii), (iii), (iv)
- (i), (iii), (iv)
- (i), (ii), (iv)

Question No.46



- Enterobacter, Salmonella, Escherichia*
- Escherichia, Enterobacter, Salmonella*
- Salmonella, Enterobacter, Escherichiam*
- Escherichia, Salmonella, Enterobacter*

Question No.47

A particular specimen designated by the author is represented as

- Holotype
- Lectotype
- Paratype
- Neotype

Question No.48

Identify the plant species from which artemisinin, an anti-malarial drug, is extracted

- Artemisia annua*
- Cinchona officinalis*
- Artemisia maritima*
- Artemisia scoparia*

Question No.49

“Red Data Book” is a record of extinct

- Animals

- Sea Weeds
- Plants and animals
- Plants

Question No.50

The pyramid of energy is always

- Inverted of forest ecosystem
- Inverted
- Upright
- Both upright and inverted

Question No.51

Impacts on individual species indicates:

- no changes at the biome level that will potentially change conditions for many plant and animal species, in addition to ecosystem services to humans.
- wider changes at the biome level that will potentially change conditions for many plant and animal species, in addition to ecosystem services to humans.
- lesser changes at the biome level that will potentially change conditions for many plant and animal species, in addition to ecosystem services to humans.
- wider changes at the biological level that will potentially change conditions for many plant and animal species, in addition to ecosystem services to humans.

Question No.52

The organization which has published the "Red Data Book" is

- International Union for Conservation of Nature and Natural Resource
- Convention on International Trade in Endangered Species of wild fauna and flora
- National wildlife action plan
- National Environmental Engineering Research

Question No.53

Arrangement of a phenomenon across the Earth's surface and a graphical display of such an arrangement I known as

- Geographical distribution
- Spatial distribution
- Regional distribution
- Temporal distribution

**Question No.54**

Which species concept utilizes morphological and molecular characters to distinguish between species

- Ecological
- Phylogenetic
- Biological
- Evolutionary

Question No.55

Binomial nomenclature was mentioned for the first time in the book

- Systema Naturae
- Philosophia Botanica
- Philosophie Zoologique
- Historia Plantarum

Question No.56

In a food chain, as we go from lower to higher trophic level, the energy ;

- Increases irregularly
- Becomes doubled at each step
- Decreases
- Remains constant

Question No.57

In five kingdom classification, the kingdom that includes the blue-green algae, nitrogen bacteria and methanogenic bacteria is

- Protista
- Fungi
- Plantae
- Monera

Question No.58

Cytotaxonomy can not utilize one of the following criteria

- Chromosome number
- Mitochondrion
- Chromosome morphology

- Cytochemistry

Question No.59

The change in genetic diversity was caused by the drastic reduction in population size due to hunting. This type of event is also called what?

- Founder effect
- Competition
- Bottleneck effect
- Speciation

Question No.60

The first phylogenetic system of plant classification to be ever put fourth was that of

- Engler and Prantl
- Bentham and Hooker'
- Hutchinson
- Eichler

Question No.61

Name of a South Indian wildlife sanctuary

- Guindy National Park
- Anaimalai
- Mudumalai
- Muttukadu

Question No.62

What species are critical to the survival of an ecosystem

- Keystone species
- Endemic species
- Bottleneck species
- Introduced species

Question No.63

Correct sequence in hierarchial classification

- Kingdom, Phylum, Order, Class, Family, Genus, Species
- Kingdom, Phylum, Class, Family, Order, Genus, Species
- Kingdom, Phylum, Class, Order, Family, Genus, Species

- Kingdom, Order, Phylum, Class, Family, Genus, Species

Question No.64

As per cladistic taxonomy, Archosaurs are a group of diapsid amniotes which include extinct dinosaurs. The living representatives of the group consist of

- Aves and Agnatha
- Anurans and Aves
- Osteichthyes and Squamata
- Aves and Crocodylia

Question No.65

Gamma taxonomy deals with

- Ecology
- Origin of species
- Speciation
- Adaptation

Question No.66

Binomial nomenclature means

- Every organism is having one scientific name with a combination of genus and species
- Organism contains generic name
- Organism contains specific name
- None of these

Question No.67

A taxonomic system based on all phenotypic similarities equally weighted and without regard to evolutionary relationship is called

- Phylogeny
- Phenetics
- Classical evolutionary taxonomy
- Cladistics

Question No.68

A sacred lake is

- khecheopalri lake of Sikkim
- Periyar lake of Kerala

- Chilka lake of Odisha
- Dal lake of Kashmir

Question No.69

Largest phylum with regard to number of species

- Arthropoda
- Protozoa
- Platyhelminthes
- Chordata

Question No.70

Sea anemone belongs to the class

- Scyphozoa
- Parazoa
- Anthozoa
- Hydrozoa

Question No.71

How many subphyla are there under phylum chordata

- Two
- One
- Four
- Three

Question No.72

The Hardy-Weinberg Theorem proves that no evolution is occurring in a population. Which of the following is not a parameter for the theorem?

- Mutations
- No migration
- Large population
- No natural selection

Question No.73

Mayr's biological concept of species is mainly based on

- Modes of reproduction
- Morphology
- Morphology and reproduction

-
- Reproductive isolation

Question No.74

Whale is not a fish, although it is found in water because it has

- No pelvic fins
- No median fins
- No scales on the body
- Mammary glands and is Viviparous

Question No.75

Nosology is meant by

- Taxonomy of Evolution
- Taxonomy of phenetic
- Taxonomy of Folk
- Taxonomy or of Disease

Question No.76

In the context of diversity patterns of species, which one of the following statements is INCORRECT?

- Alpha diversity is diversity within a single community
- Alpha diversity is the regional diversity found among range of communities in a geographical region
- Beta diversity is a measure of the change in species composition from one community or habitat to another
- Gamma diversity is the regional diversity found among range of communities/habitats in a geographical region

Question No.77

In a marine field survey you observed a sample of solitary ascidian belonging to the subphylum Tunicata. How will you confirm the identification?

- (i). Presence of branchial and atrial openings
- (ii). Squirting a jet of water when disturbed
- (iii). Presence of a test
- (iv). Notochord in the anterior end

- (i), (ii), (iv)
- (i), (ii), (iii)
- (ii), (iii), (iv)
- (i), (iii), (iv)

Question No.78

Binomial system of nomenclature was given by

- Robert Hook
- Charles Darwin
- Robert Brown
- Carolus Linnaeus

Question No.79

A new taxonomic code, Phylocode, has been proposed as an alternate to Linnean taxonomy which is based on

- Evolutionary Systematics
- Cladistic principles
- Numerical taxonomy
- Acquired characters

Question No.80

According to 2014 IUCN Red List, which of the following vertebrate classes has the largest percentage of threatened species?

- Birds
- Amphibians
- Mammals
- Reptiles

Question No.81

What was the name of the first international agreement on climate change?

- International Union for the Conservation of Nature (IUCN)
- Montreal Protocol
- Red List
- Kyoto Protocol

Question No.82

Authors of the book "Principles of Numerical Taxonomy" are

- Engler and Prantl
- Alston and Turner
- Sokal and Sneath
- Hansen and Rahn

Question No.83

ICBN is connected with correct nomenclature of

- Animals
- Bacteria
- Plants
- Biochemicals

Question No.84

Natural classification is based on

- Morphology
- Morphology and Phylogeny
- Phylogeny
- Ontogeny

Question No.85

Species most vulnerable to extinction from human activities are those with

- Many natural predators.
- Low carrying capacities
- High population growth rates
- Large niches

Question No.86

Carlous Linnaeus system is an artificial system because

- It is phylogenetic
- It is based on evolutionary trends
- It is based on a few characters of superficial similarities and dissimilarities on morphology
- It is ased on numer of characters

Question No.87

Which one of the following parameters is NOT used in phenetic classification of bacteria

- 16SrRNA sequence
- Trophism
- Reaction to a particular antibody
- Susceptibility of a bacteria to particular bacteriophage

Question No.88

Sometimes different authors give different names to the same species. In such a situation

- People are at liberty to use any one of the names of the species
- Latest name under which the species was described is valid
- All known names are discarded and a new name is given
- Name under which the species was first described is valid

Question No.89

The first international Botanical Congress met in

- Paris
- Geneva
- Cambridge
- Vienna

Question No.90

Which of the following country has the highest biodiversity

- south Africa
- Brazil.
- Russia
- India

Question No.91

An alga having chlorophyll a, floridean starch as storage product and lacking flagellate cells belongs to the class

- Chlorophyceae
- Xanthophyceae
- Rhodophyceae
- Phaeophyceae

Question No.92

A species is taxonomically

- A group of evolutionary related population
- A fundamental unit in the phylogenetic history of organisms
- A base category to which most taxonomic information is attached
- A population with common characteristics as evolutionary base of variation

Question No.93

The smallest unit of classification is

- Class
- Species
- Genus
- Family

Question No.94

A foodweb

- increases variety as well as quantity of food at each trophic level
- Delicately alances the inter relations amongst organisms
- Decreases variety of food but increases quantity of food at each trophic level
- Increases variety of food at each trophic level

Question No.95



- family tree
- base tree
- nodogram
- Cladogram

Question No.96

In binomial nomenclature first and second terms refer to

- Subfamily and species
- Genus and species
- Genus and family
- Genus and subspecies

Question No.97

The number of families in Bentham and Hooker's classification is

- 202
- 186
- 196
- 206

Question No.98



Natural system of classification differs from artificial system is

- Taking only one vegetative trait
- Employing only one floral trait
- Bringing out similarities and dissimilarities
- Developing evolutionary trends

Question No.99



Many wild plants and animals are on the verge of extinction due to

- climatic changes
- deforestation
- non-availability of food
- none of these

Question No.100



The vernacular naming or classification of things on the basis of cultural tradition, rather than on scientific principles is known as

- Vernacular taxonomy
- Non-scientific taxonomy
- Cultural taxonomy
- Folk taxonomy