

Exercise - I (Conceptual Questions)

Build Up Your Understanding

INTRODUCTION TO BIOLOGY

1. Which of the following is a defining characteristic of living organisms?
- (1) Growth
 - (2) Ability to make sound
 - (3) Reproduction
 - (4) Response to external stimuli

BLW089

2. In the given columns, column I contains the terms and column II contains its description. Select the correct match from the option given below.

Column I		Column II	
A.	Growth	I.	Production of offspring
B.	Reproduction	II.	Composed of one or more living cells
C.	Metabolism	III.	Increase in mass and increase in number of individuals
D.	Cellular organization	IV.	Sum total of all chemical reactions occurring in a living body

- (1) A-I, B-II, C-III, D-IV
- (2) A-III, B-II, C-II, D-IV
- (3) A-III, B-I, C-IV, D-II
- (4) A-II, B-IV, C-III, D-I

BLW094

3. Which of the followings is a unique feature of living organisms?
- (1) Growth and reproduction.
 - (2) Reproduction and ability to sense environment.
 - (3) Metabolism and consciousness.
 - (4) All of the above

BLW095

4. Which of the followings is not true?
- (1) Emergent properties is found in every level of biological organization
 - (2) Emergent properties do not present in a level that is beyond the organism
 - (3) Homeostasis indicates ability of self-regulation
 - (4) Mechanisms of homeostasis is different for different parameters.

BLW096

5. Adaptation is _____.
- (1) Types of living beings present on earth
 - (2) Essential character of an organism that is necessary for its survival.
 - (3) Inability to respond against environmental cue
 - (4) Types of flora present in an area.

BLW097

6. Which two points are known as the twin characteristics of growth?
- (i) Increase in mass
 - (ii) Differentiation
 - (iii) Increase in number of individuals
 - (iv) Response to stimuli
- (1) (i) and (ii)
 - (2) (i) and (iv)
 - (3) (ii) and (iii)
 - (4) (i) and (iii)

BLW100

7. Growth and reproduction are mutually exclusive events in _____.
- (1) All organisms
 - (2) Only in unicellular organisms
 - (3) Only in multicellular organisms
 - (4) All animates and in animates

BLW111

8. Growth occurs _____ in plants and _____ in animals.

- (1) continuously, only up to a certain age
- (2) only up to a certain age, continuously
- (3) continuously, never
- (4) once, twice

BLW112

9. Defining characters of all livings is/are :-

- (1) Metabolism
- (2) Consciousness
- (3) Cellular organization
- (4) All of the above

BLW113

10. All livings show :-

- (1) Growth
- (2) Reproduction
- (3) Metabolism
- (4) Both (1) & (3)

BLW114

DIVERSITY IN THE LIVING WORLD, TAXONOMY

11. Artificial system of classification classifies plants on the basis of :-

- (1) One or few characters
- (2) Phylogenetic trends
- (3) Many naturally existing characters
- (4) None of the above

BLW002

12. The term systematics was introduced by :-

- (1) Mayr
- (2) Bentham
- (3) Hutchinson
- (4) Linnaeus

BLW003

13. ICBN was first published in :-

- (1) 1961
- (2) 1964
- (3) 1975
- (4) 1753

BLW005

14. The term taxon refers to :-

- (1) Name of a species
- (2) Name of genus
- (3) Name of family
- (4) A taxonomic group of any rank

BLW006

15. Taxonomy term was given by :-

- (1) Linnaeus
- (2) Mayr
- (3) Haeckel
- (4) A.P. de. Candolle

BLW009

16. Plant nomenclature means :-

- (1) To give names to plants without any rules.
- (2) Nomenclature of plants under the international rules.
- (3) Nomenclature of plants in local language
- (4) Nomenclature of plants in English language.

BLW010

17. Which of the following is a correct name ?

- (1) *Solanum tuberosum*
- (2) *Solanum Tuberosum*
- (3) *Solanum tuberosum* Linn.
- (4) All the above

BLW011

18. Systematics deals with :-

- (1) Classification
- (2) Nomenclature
- (3) Identification
- (4) All of these

BLW012

19. Scientific name of Mango plant is *Mangifera indica* Linn. in the above name Linn. refers to:

- (1) Variety of Mango
- (2) A taxonomist who proposed the present nomenclature in honour of Linnaeus
- (3) A scientist who for the first time described Mango plant
- (4) A scientist who changed the name proposed by Linnaeus and proposed present name

BLW013

- 20.** Who wrote *Species Plantarum* ?
 (1) Linnaeus (2) Mayr
 (3) Bentham (4) Aristotle
BLW016
- 21.** For higher plants, flowers are chiefly used as a basis of classification, because :—
 (1) These show a great variety in colour
 (2) It can be preserved easily
 (3) Reproductive parts are more conservative than vegetative parts
 (4) None of these
BLW017
- 22.** Term systematics was derived from _____ word "Systema" which means _____.
 (1) Greek, evolutionary relationship
 (2) Latin, systematic arrangement of organism
 (3) English, taxonomy of organisms
 (4) Both (2) & (3)
BLW018
- 23.** Which of the followings is not an advantage of taxonomy?
 (1) Avoid confusion in scientific community
 (2) Provides a valid name of an organism
 (3) Provides help in studying them.
 (4) Prevent loss of biodiversity
BLW019
- 24.** Book '*Systema Naturae*' was written by :-
 (1) Mayr
 (2) Linnaeus
 (3) John-Ray
 (4) Theophrastus
BLW025
- 25.** Most of the botanical names are derived from the following language :-
 (1) German (2) Greek
 (3) Latin (4) Spanish
BLW026
- 26.** 'Taxa' differs from 'taxon' due to being: -
 (1) A higher taxonomic category than taxon.
 (2) Lower taxonomic category than taxon.
 (3) The plural of taxon.
 (4) The singular of taxon.
BLW029
- 27.** Evolutionary history of an organism is known as :-
 (1) Paleontology
 (2) Ontogeny
 (3) Phylogeny
 (4) Ancestry
BLW031
- 28.** ICBN stands for :
 (1) Indian Code of Botanical Nomenclature
 (2) Indian Congress of Biological Names
 (3) International Code of Botanical Nomenclature
 (4) International Congress of Biological Names
BLW033
- TAXONOMIC CATEGORIES**
- 29.** Mayr proposed which type of concept of species :-
 (1) Taxonomic concept
 (2) Biological concept
 (3) Taxonomic and Biological concept
 (4) Genetic concept
BLW001
- 30.** Group of organisms that closely resemble each other and freely interbreed in nature, constitute a:
 (1) Species (2) Genus
 (3) Family (4) Taxon
BLW004
- 31.** The basic smallest unit of classifications is :-
 (1) Genus (2) Species
 (3) Order (4) All of the above
BLW008

32. Angiospermae is taxa at the rank of?

- (1) Genus (2) Order
(3) Class (4) Division

BLW014

33. Which one of the following animals is correctly matched with its correct taxonomic category?

- (1) Tiger – *Panthera*, the genus
(2) Solanum – china rose, the genus
(3) Humans – Primata, the family
(4) Housefly – *Musca*, an order

BLW020

34. Which of the following taxonomic category of housefly is incorrectly matched?

- (1) Genus – *Musca* (2) Family – Muscidae
(3) Order – Primata (4) Class – Insecta

BLW021

35. Which of the following organisms is not correctly matched with its category?

- (1) Human – *Sapiens*, specific epithet
(2) Lion – *Panthera*, genus
(3) Cats – Felidae, genus
(4) Datura – Solanaceae, family

BLW022

36. Who is regarded as 'Darwin of 20th Century'?

- (1) John Ray (2) Lamarck
(3) Ernst Mayr (4) Darwin

BLW023

37. Two plants can be conclusively said to belong to the same species if they :

- (1) Have same number of chromosomes
(2) Can reproduce freely with each other and form seeds
(3) Have more than 90 percent similar genes
(4) Look similar and possess identical secondary metabolites.

BLW032

EXERCISE-I (Conceptual Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	4	3	4	2	2	4	3	1	4	4	1	4	1	4	4
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	2	3	4	3	1	3	2	4	2	3	3	3	3	2	1
Question	31	32	33	34	35	36	37								
Answer	2	4	1	3	3	3	2								

Exercise - II (Previous Year Questions)

AIPMT/NEET

NEET-I 2016

1. Nomenclature is governed by certain universal rules. Which one of the following is contrary to the rules of nomenclature?
- (1) Biological names can be written in any language
 - (2) The first word in a biological name represents the genus name, and the second is a specific epithet
 - (3) The names are written in Latin and are italicised
 - (4) When written by hand, the names are to be underlined

BLW035

NEET-II 2016

2. The label of a herbarium sheet does not carry information on :
- (1) Local names
 - (2) height of the plant
 - (3) date of collection
 - (4) name of collector

BLW036

[PYQ from deleted syllabus as per NMC 2023 guidelines]

3. Match Column-I with Column-II for housefly classification and select the correct option using the codes given below :

Column-I		Column-II	
(a)	Family	(i)	Diptera
(b)	Order	(ii)	Arthropoda
(c)	Class	(iii)	Muscidae
(d)	Phylum	(iv)	Insecta

Codes :

- | | | | | |
|-----|-------|-------|------|-------|
| | (a) | (b) | (c) | (d) |
| (1) | (iv) | (iii) | (ii) | (i) |
| (2) | (iv) | (ii) | (i) | (iii) |
| (3) | (iii) | (i) | (iv) | (ii) |
| (4) | (iii) | (ii) | (iv) | (i) |

BLW037

4. Study the four statements (A–D) given below and select the two correct ones out of them :
- (A) Definition of biological species was given by Ernst Mayr.
 - (B) Photoperiod does not affect reproduction in plants.
 - (C) Binomial nomenclature system was given by R.H. Whittaker.
 - (D) In unicellular organisms, reproduction is synonymous with growth.

The two correct statements are

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

BLW038

NEET-UG 2018

5. Match the items given in Column-I with those in Column-II and select the correct option given below:-

	Column-I		Column-II
(a)	Herbarium	(i)	It is a place having a collection of preserved plants and animals.
(b)	Key	(ii)	A list that enumerates methodically all the species found in an area with brief description aiding identification.
(c)	Museum	(iii)	Is a place where dried and pressed plant specimens mounted on sheets are kept.
(d)	Catalogue	(iv)	A booklet containing a list of characters and their alternates which are helpful in identification of various taxa.

- (1) (a)-i, (b)-iv, (c)-iii, (d)-ii
 (2) (a)-iii, (b)-ii, (c)-i, (d)-iv
 (3) (a)-ii, (b)-iv, (c)-iii, (d)-i
 (4) (a)-iii, (b)-iv, (c)-i, (d)-ii

BLW039

[PYQ from deleted syllabus as per NMC 2023 guidelines]

NEET-UG 2019

6. Select **correctly** written scientific name of Mango which was first described by Carolus Linnaeus:
 (1) *Mangifera indica* Car. Linn.
 (2) *Mangifera indica* Linn.
 (3) *Mangifera indica*
 (4) *Mangifera Indica*

BLW040

NEET-UG 2019 (Odisha)

7. Which of the following is against the rules of ICBN?
 (1) Hand written scientific names should be underlined.
 (2) Every species should have a generic name and a specific epithet.
 (3) Scientific names are in Latin and should be italicized.
 (4) Generic and specific names should be written starting with small letters.
8. The contrasting characteristics generally in a pair used for identification of animals in taxonomic key are referred to as :
 (1) Lead (2) Couplet
 (3) Doublet (4) Alternate

BLW041

BLW042

[PYQ from deleted syllabus as per NMC 2023 guidelines]

NEET-UG 2021

9. Which one of the following belongs to the family Muscidae?
 (1) Fire fly (2) Grasshopper
 (3) Cockroach (4) House fly

BLW043

NEET-UG 2022

10. In the taxonomic categories which hierarchical arrangement in ascending order is **correct** in case of animals ?
 (1) Kingdom, Class, Phylum, Family, Order, Genus, Species
 (2) Kingdom, Order, Class, Phylum, Family, Genus, Species
 (3) Kingdom, Order, Phylum, Class, Family, Genus, Species
 (4) Kingdom, Phylum, Class, Order, Family, Genus, Specie

BLW044

Re-NEET-UG 2022

11. Which of the following are true about the taxonomical aid 'key' ?
 (a) Keys are based on the similarities and dissimilarities.
 (b) Key is analytical in nature.
 (c) Keys are based on the contrasting characters in pair called couplet.
 (d) Same key can be used for all taxonomic categories.
 (e) Each statement in the key is called Lead.
- Choose the most appropriate answer from the options given below :
 (1) (a), (b) and (c) only
 (2) (b), (c) and (d) only
 (3) (a), (b), (c) and (e) only
 (4) (a), (c), (d) and (e) only

BLW045

[PYQ from deleted syllabus as per NMC 2023 guidelines]

NEET (UG) 2023 (Manipur)

12. 'X' and 'Y' are the components of Binomial nomenclature. This naming system was proposed by 'Z' :

- (1) X-Generic name, Y-Specific epithet,
Z-Carolus Linnaeus
- (2) X-Specific epithet, Y-Generic name,
Z-R.H. Whittaker
- (3) X-Specific epithet, Y-Generic name,
Z-Carolus Linnaeus
- (4) X-Generic name, Y-Specific epithet,
Z-R.H. Whittaker

BLW115

EXERCISE-II (Previous Year Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	
Answer	1	2	3	1	4	2	4	2	4	4	3	1	

Solution :

[PYQ from deleted syllabus as per NMC 2023 guidelines]

Sol.2 Herbarium sheet carry a label providing information about date, place of collection, english/local and botanical name, family, collector's name.

Sol.5 Herbarium - It is a place where dried and pressed plant specimens mounted on sheets are kept.

Key - A booklet containing a list of characters and their alternates which are helpful in identification of various taxa.

Museum - It is a place having a collection of preserved plants and animals.

Catalogue - A list that enumerates methodically all the species found in an area with brief description aiding identification.

Sol.8 Key is another taxonomical aid used for identification of plants and animals based on the similarities and dissimilarities. The keys are based on the contrasting characters generally in a pair called **couplet**. It represents the choice made between two opposite options.

Sol.11 Statement (d) is incorrect because separate taxonomic keys are required for each taxonomic category such as family, genus and species for identification purposes.

Exercise - III

Master Your Understanding

(A) NCERT BASED QUESTIONS

1. The number and types of organisms present on earth make :-
 (1) Taxonomy (2) Plant diversity
 (3) Animal diversity (4) Biodiversity

BLW046

2. The process by which anything is grouped into convenient categories based on some easily observable characters is called as:-
 (1) Biodiversity (2) Classifications
 (3) Identification (4) Nomenclature

BLW047

3. The process in which biologists follow universally accepted principles to provide name of any organism is called as :-
 (1) Identification (2) Classification
 (3) Nomenclature (4) Systematics

BLW048

4. What are the essential basis of modern taxonomic studies ?
 (1) External and internal structure
 (2) Structure of cell
 (3) Developmental process and ecological information
 (4) All of these

BLW049

5. Characterisation of families is done on the basis of:-
 (1) Vegetative features
 (2) Reproductive features
 (3) Both (1) and (2)
 (4) None of them

BLW050

6. In the names *Mangifera indica*, *Solanum tuberosum* and *Panthera leo*, the words *indica*, *tuberosum* and *leo* represent :-
 (1) Generic name
 (2) Generic epithet
 (3) Name of species
 (4) Specific epithet

BLW051

7. Why the determination of relationship becomes more complex in higher taxonomic categories ?
 (1) Number of common characters goes on decreasing in lower taxa
 (2) Number of common characters goes on decreasing in higher taxa
 (3) Because classification itself is very difficult process
 (4) Number of common characters goes on increasing in higher taxa

BLW052

8. Which of the following is **not** a correct statement?
 (1) Order is the assemblage of families which exhibit a few similar characters in comparison to families
 (2) Convolvulaceae and Solanaceae families are included in order Polymoniales mainly on the basis of floral characters
 (3) In hierarchy both broad categories and sub categories are used
 (4) Class is a sub category which includes related order

BLW053

9. All the categories used in classification of organism constitute :-
 (1) Taxonomy
 (2) Systematics
 (3) Taxonomic hierarchy
 (4) Taxonomic affinity

BLW059

10. The number of species that are known and described ranges between :
 (1) 1-2 million (2) 1.7 - 1.8 billion
 (3) 1.7 - 1.8 million (4) 7 million

BLW060

11. Branch of biology, which deals with study of evolutionary relationship between organism:
 (1) Plant anatomy (2) Systematics
 (3) Ecology (4) Physiology

BLW061

12. In botanical gardens various plant species are grown for which purpose?
 (1) Identification (2) Nomenclature
 (3) Classification (4) Both (2) and (3)

BLW062

13. ICZN is used for
 (1) Virus (2) Bacteria
 (3) Cultivated plants (4) Animals

BLW066

(B) ANALYTICAL QUESTIONS

14. Practical purpose of taxonomy or classification :-
 (1) Facilitate the identification of unknown species.
 (2) Explain the origin of organisms.
 (3) To know the evolutionary history
 (4) Identification of medicinal plants

BLW067

15. The correct sequence of evolution is :-
 (1) Bryophyta → Pteridophyta → Gymnosperms → Dicots → Monocots
 (2) Pteridophyta → Gymnosperms → Dicots → Monocots → Bryophyta
 (3) Bryophyta → Gymnosperms → Dicots → Monocots → Angiosperms
 (4) Bryophyta → Pteridophyta → Gymnosperms → Monocots → Dicots

BLW068

16. Which of the following more similar in characters as compared to genus?
 (1) Species (2) Division
 (3) Class (4) Family

BLW069

17. Phenetic classification is based on :-
 (1) The ancestral lineage of existing organisms
 (2) Observable characteristics of existing organisms
 (3) Dendograms based on DNA characteristics
 (4) Sexual characteristics

BLW070

18. Species are considered as :-
 (1) Real, basic and lowest units of classification.
 (2) The units of classification of any rank.
 (3) Artificial concept of human mind.
 (4) Biggest units of classification devised by taxonomists.

BLW071

19. Which of the following is not true for a species?
 (1) Variations occur among members of a species
 (2) Gene flow does not occur between the populations of a species

- (3) Each species is reproductively isolated from every other species
(4) Members of a species can interbreed

BLW072

20. As we go from species to kingdom in a taxonomic hierarchy, the number of common characteristics
- (1) Will decrease
(2) Will increase
(3) Remain same
(4) May increase or decrease

BLW073

21. Which of the following is / are not correctly match?

	Common Name	Genus	Family
(i)	Man	<i>Homo</i>	Hominidae
(ii)	Housefly	<i>Musa</i>	Muscidae
(iii)	Mango	<i>Mangifera</i>	Anacardiaceae
(iv)	Wheat	<i>Triticum</i>	Poaceae

- (1) i & ii
(2) only i
(3) only ii
(4) iii & iv

BLW075

22. How many of the followings are taxa ?
Dogs, Cats, Mammals, Wheat, Rice, Plants, Wood, Mango, Leaves, Jointed legs.

- (1) Eight
(2) Six
(3) Seven
(4) One

BLW076

23. How many are the **incorrect** statements from the followings ?

- (A) Lower the taxa, more are the characteristics that the members within the taxon share
(B) Higher the taxonomic category, greater is the difficulty of determining the relationships to other taxa at the same level

- (C) In lower taxa the problems of classification becomes more complex
(D) As we go higher from species to kingdom, the number of common characters increases

- (1) One
(2) Two
(3) Three
(4) Four

BLW078

24. Nomenclature is very must in taxonomy which of the following is **not correct** about scientific nomenclature ?

- (1) They ensure that each organism has only one name
(2) They also ensure that such a name has not been used for any other known organism
(3) Scientific nomenclature is a standardised naming system
(4) Different countries of the world use different kinds of scientific nomenclature system

BLW080

25. The relation of Solanaceae and Convolvulaceae with Polymoniales is similar to the relation occurring in:-

- (1) Felidae and Canidae with Carnivora
(2) Primata and Carnivora with Mammalia
(3) Amphibia and Reptilia with Chordata
(4) *Solanum* and *Petunia* with Solanaceae

BLW081

26. Which of the following 'suffixes' used for units of classification in plants indicates a taxonomic category of 'family'.

- (1) Ales
(2) Onae
(3) Aceae
(4) Ae

BLW082

27. The term 'systematics' refers to:
- (1) Identification and classification of plants and animals
 - (2) Nomenclature and identification of plants and animals
 - (3) Diversity of kinds of organisms and their relationship
 - (4) Different kinds of organisms and their classification

BLW083

28. Genus represents -
- (1) An individual plant or animal
 - (2) A collection of plants or animals
 - (3) Group of closely related species of plants or animals
 - (4) None of these

BLW084

29. The taxonomic unit 'Phylum' in the classification of animals is equivalent to which hierarchical level in classification of plants -
- (1) Class
 - (2) Order
 - (3) Division
 - (4) Family

BLW085

30. All living organisms are linked to one another because
- (1) They have common genetic material of the same type
 - (2) They share common genetic material but to varying degrees
 - (3) All have common cellular organization
 - (4) All of above

BLW088

31. Match the following and choose the correct option:

A. Family	i. <i>Solanum tuberosum</i>
B. Kingdom	ii. Polymoniales
C. Order	iii. <i>Solanum</i>
D. Species	iv. Plantae
E. Genus	v. Solanaceae

Options:

- (1) i-D, ii-C, iii-E, iv-B, v-A
- (2) i-E, ii-D, iii-B, iv-A, v-C
- (3) i-D, ii-E, iii-B, iv-A, v-C
- (4) i-E, ii-C, iii-B, iv-A, v-D

BLW090

32. What is been deified by early man?

- (1) All in animates
- (2) All animates
- (3) Some animates and some inanimates
- (4) All living beings

BLW091

33. What was the biggest spin off (outcome) of systematic studies?

- (1) Recognition of the sharing of similarities among living organisms only horizontally
- (2) Recognition of the sharing of similarities among living organisms only vertically
- (3) Recognition of the sharing of similarities among living organisms horizontally as well as vertically
- (4) Recognition of importance of non-living.

BLW092

34. Revelation of which information humbled man and they started conservation of biodiversity?

- (1) All the organisms have soul.
- (2) All living organisms has RNA.
- (3) All living organisms share common genetic material.
- (4) All living organisms has life span.

BLW093

35. Match column I with column II and selected the correct option from the codes given below.

Column I		Column II	
(a)	Family	i.	<i>tuberosum</i>
(b)	Kingdom	ii.	Polymonials
(c)	Order	iii.	<i>Solanum</i>
(d)	Species	iv.	Plantae
(e)	Genus	v.	Solanaceae

- (1) (a)-v, (b)-iv, (c)-ii, (d)-i, (e)-iii
 (2) (a)-v, (b)-iv, (c)-i, (d)-iii, (e)-ii
 (3) (a)-i, (b)-ii, (c)-iii, (d)-v, (e)-iv
 (4) (a)-ii, (b)-i, (c)-iii, (d)-iv, (e)-v

BLW098

36. Genus represents aggregate of closely related species. Which of the following group of species does not belong to same genus?

- (1) Potato, Brinjal
 (2) Brinjal, Makoi
 (3) Lion, Leopard
 (4) Potato, Sweet potato

BLW099

37. Which of the following statements are not correct ?

- (i) Lower the taxon, more are the characteristics that the members within the taxon share.
 (ii) Order is the assemblage of genera which exhibit a few similar characters.
 (iii) Cat and dog are included in the same family Felidae.
 (iv) Binomial nomenclature was introduced by Carolus Linnaeus.

- (1) (i), (ii) and (iii) (2) (ii), (iii) and (iv)
 (3) (i) and (iv) (4) (ii) and (iii)

BLW101

38. Which of the following statements are correct?

- (i) Genus comprises a group of related species.
 (ii) Taxon represents a taxonomic group of individual organisms.
 (iii) Family comprises a group of related genera.
 (iv) Taxonomic category class includes related orders.

(1) (i), (ii), and (iv)

(2) (ii) and (iv)

(3) (i), (iii) and (iv)

(4) (ii), (iii) and (iv)

BLW102

39. Which of the following statement(s) is/are correct ?

- (i) Classification is the providing of standardize names to the organisms such that a particular organism known by the same all over the world.
 (ii) Taxonomy is the correct description of an organism and to recognition by its scientific name.
 (iii) The system of naming with two components (binomial nomenclature) is proposed by Carolus Linnaeus.
 (iv) Zoological names are based on International Code of Zoological Nomenclature (ICZN).

(1) Only (i)

(2) Both (iii) and (iv)

(3) Only (iv)

(4) All of these

BLW103

40. Which of the following statement(s) is/are not correct ?

- (i) Genus comprises a group of related species which has more characters in common in comparison to species of other genera.
- (ii) Three different genera such as *Solanum*, *Datura* and *Petunia* are placed in the family Malvaceae.
- (iii) In case of plants, classes with a few similar characters are assigned to a higher category called phylum.

- (1) Both (i) and (ii)
- (2) Only (iii)
- (3) Both (ii) and (iii)
- (4) All of these

BLW104

41. Select the correct statements (i-v) regarding taxonomic categories.

- (i) Each step or rank in hierarchy is called taxonomic category.
- (ii) Species is a group of individual organisms with fundamental similarities capable of breeding among themselves.
- (iii) Taxonomic studies of all unknown organisms have led to the development of common categories like kingdom, phylum or division, class, order, family, genus and species.
- (iv) Lower the category, greater is the difficulty of determining the relationship to other taxa at the same level.

- (1) (i) & (ii) only
- (2) (ii) & (iv) only
- (3) (i), (ii) & (iii) only
- (4) All of the above

BLW105

42. **Assertion** : Taxon and category are different things.

Reason : Category shows hierarchical classification.

- (1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
- (2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
- (3) If Assertion is true but Reason is false.
- (4) If both Assertion and Reason are false.

BLW106

43. **Assertion** : The species is reproductively isolated natural population.

Reason : Prokaryotes cannot be kept under different species on the basis of reproductive isolation.

- (1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
- (2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
- (3) If Assertion is true but Reason is false.
- (4) If both Assertion and Reason are false.

BLW107

44. Assertion : Binomial nomenclature given by Linnaeus is being practiced by biologists all over the world.

Reason : Each name of this system has two components, the generic name and the specific epithet.

(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.

(3) If Assertion is true but Reason is false.

(4) If both Assertion and Reason are false.

BLW116

45. Assertion : Scientific names for plants have been standardized through ICBN.

Reason : Naming system which used three word format was given by Linnaeus.

(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.

(3) If Assertion is true but Reason is false.

(4) If both Assertion and Reason are false.

BLW110

EXERCISE-III

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	4	2	3	4	3	4	2	4	3	3	2	1	4	1	1
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	1	2	1	2	1	3	3	2	4	1	3	3	3	3	2
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	1	3	3	3	1	4	4	3	2	3	1	2	2	1	3