The Living World

1. **Assertion (A):** Growth can not be taken as defining property of living organisms
Reason (R): Non living objects also grow if we take increase in body mass as a criterion for growth.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

2. **Assertion (A):** In unicellular organisms like bacteria, unicellular algae or Amoeba, reproduction is synonymous with growth.
Reason (R): Reproduction is one of the defining characteristic of living organisms.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

3. **Assertion (A):** All organisms, from prokaryotes to most complex eukaryotes can sense and respond to environmental cues.
Reason (R): Consciousness is the most defining property of living beings.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

4. **Assertion (A):** All the living objects can not exhibit all living properties.
Reason (R): All living phenomenon are due to underlying interactions.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

5. **Assertion (A):** Living organisms are self replication, evolving and self regulating interactive system capable of responding to external stimuli.
Reason (R): Living beings show hierarchy of organizational complexity at all levels.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

6. **Assertion (A):** For plants scientific names are based on agreed principles and criteria which are provided in ICNB.
Reason (R): The scientific names ensure that each organism has only one name, but this name can be repeated for other organism of same kingdom.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

7. **Assertion (A):** Binomial naming system given by Carolus Linnaeus is being practiced by biologists all over the world.
Reason (R): This naming system using a two word format was found convenient.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

8. **Assertion (A):** Binomial names are latinized or derived from latin irrespective of their origin.
Reason (R): Latin is a dead language, so used by scholars.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

9. **Assertion (A):** Branch of biology which deals with knowing more about different kind of organisms and their diversities and relationship among them is known as systematics.
Reason (R): The scope of systematics can not enlarge to include identification, nomenclature and classification.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

10. **Assertion (A):** Species is the most fundamental unit of taxonomy.
Reason (R): In taxonomic hierarchy, species rank shows maximum common features.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

11. **Assertion (A):** Genera are aggregates of closely related species.
Reason (R): Genus comprises a group of related species which has more characters in common in comparison to species of other genera.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

12. **Assertion (A):** Families are characterized on the basis of both vegetative and reproductive features of species.
Reason (R): Members of family can show morphological similarities, but unexceptionally none of the genera of same family can interbreed with each other.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

13. **Assertion (A):** In higher category there is great difficulty of determining the relationship to other taxa at the same level.
Reason (R): In higher taxa there are less characteristics that the members within the taxa share.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

14. **Assertion (A):** Herbaria can not serve as quick reference system in taxonomical studies.
Reason (R): Herbaria do not help in identification and classifications.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

15. **Assertion (A):** Cryptogams do not reproduce sexually.
Reason (R): Flowers are indistinct in cryptogams.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

16. **Assertion (A):** Classification of Linnaeus is artificial.
Reason (R): It is based on artificial characters.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

17. **Assertion (A):** The species is a group of interbreeding individuals reproductively isolated from the other species populations.
Reason (R): Prokaryotes cannot be kept under different species on the basis of reproductive isolation.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

18. **Assertion (A):** Species are static units in classification.
Reason (R): Species do not change with time.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

19. **Assertion (A):** Taxonomic Keys are device used by biologists for identifying unknown organisms.
Reason (R): Keys are presented with a series of choices about the characteristics of the unknown organisms; by making the correct choice at each step of the key, the user is ultimately led to the identity of a specimen.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

20. **Assertion (A):** In an organism anabolism and catabolism take place simultaneously.
Reason (R): Senescence occurs when there is an increase in the rate of anabolism with respect to catabolism.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

21. **Assertion (A):** Reproduction cannot be an all-exclusive defining characteristic of living organisms but no nonliving object is capable of reproducing or replicating by itself.
Reason (R): All living organisms do not reproduce.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

22. **Assertion (A):** Biological concept of species is most accepted explanation about definition of species.
REASON (R): Biological concept of species explains the diversity of origin of species.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

23. **Assertion (A):** Most of the species are identified on the basis biological species concept.
Reason (R): Interbreeding can be practically used as routine criterion for identification.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

24. **Assertion (A):** Before assigning a biological name to a living organism, it is essential to identify the organism correctly.
Reason (R): Nomenclature or naming is only possible when the organism is described correctly and we know to what organism the name is attached to.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

25. **Assertion (A):** Higher the taxonomic category, greater is the difficulty of determining the relationship to other taxa at the same level.

Reason (R): The higher taxonomic categories are more exclusive and the lower taxonomic categories are more inclusive in nature.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)

(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)

(3) (A) is true but (R) is false

(4) Both (A) and (R) are false

26. **Assertion (A):** Reproduction cannot be an all-inclusive defining characteristic of living organisms.

Reason (R): No non-living object is capable of reproducing or replicating by itself.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)

(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)

(3) (A) is true but (R) is false

(4) Both (A) and (R) are false

27. **Assertion (A):** Higher the taxonomic category, greater is the difficulty of determining the relationship to other taxa at the same level.

Reason (R): Lower the taxa, more are the characteristics that the members within the taxon share.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)

(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)

(3) (A) is true but (R) is false

(4) Both (A) and (R) are false

Directions: In the following questions, a statement of assertion is followed by a statement of reason. Mark the correct choice as:
(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(c) If Assertion is true but Reason is false.
(d) If both Assertion and Reason are false

28. **Assertion:** Metabolism refers to the sum of chemical reactions that occur within living organisms.
Reason: Metabolic reactions occur simultaneously inside living organisms.

29. **Assertion:** One of the defining property of living organisms is consciousness.
Reason: Human being is the only organism that has self consciousness.

30. **Assertion:** Reproduction cannot be refered as defining property of living organism.
Reason: There are some living organism that do not reproduce e.g. mules, worker bees, infertile human, etc.

31. **Assertion:** Binomial nomenclature is system of providing name with two.
Reason: Each name consists first of a specific name and second of a generic name.

32. **Assertion:** ICBN is responsible for giving scientific name to plant.
Reason: It uses articles, photographs and recommendations to name a plant.

33. **Assertion:** Flora contains the actual account of habitat and distribution of plants of a given area.
Reason: Monographs contain detailed information on any taxon.

34. **Assertion:** Keys are analytical in nature.
Reason: These are based on couplet.

35. **Assertion (A):** Naja naja is a tautonym.
Reason (R): Animals in which generic name and species name are the same.
The correct option among the following is
(a) (A) is true, (R) is true and (R) is the correct explanation for (A)
(b) (A) is true, (R) is true but (R) is not the correct explanation for (A)
(c) (A) is true but (R) is false
(d) (A) is false but (R) is true

36. **Assertion (A):** Species is a breeding unit.
Reason (R): A species is reproductively isolated from the individuals of the other species. The correct answer is

37. **Assertion:** Living organism are regarded as closed system.
Reason: Energy of living organisms not be lost or gained from external environment.

38. **Assertion:** Living organisms possess specific individuality with the definite shape and size.
Reason: Both Living and non living entities resemble each other at the lower level of organization.

39. **Assertion:** Systematics is the branch of biology that deals with classification of living organisms.
Reason: The aim of classification is to group the organisms.

40. **Assertion:** The species is reproductively isolated natural population.
Reason: Prokaryotes cannot be kept under different species on basis of reproductive isolation.

ANSWER KEY																			
Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Ans.	1	3	1	1	2	4	1	1	3	1	1	3	1	4	4	3	2	4	1	3
Que.	**21**	**22**	**23**	**24**	**25**	**26**	**27**													
Ans.	1	2	1	1	1	2	1													

28.	29.	30.	31.	32.	33.	34.	35.	36.	**37.**	38.	**39.**	**40.**				
b	b	d	c	a	b	b			d	b	b	b				