

Topic :- The Living World

- 1 **(d)**
Order is the assemblage of families which exhibit a few similar characters. The similar characters are less in number as compared to different genera included in a family. For example, plant families like Convolvulaceae, Solanaceae, etc. are included in order- Polimoniales mainly based on floral character. In animals, order-Carnivora includes families like Felidae and Canidae

Family has a group of related genera with less number of similarities as compared to genus and species. Cat and dog showing some similarities and some differences are placed into two different families-Felidae and Canidae, respectively.
- 2 **(b)**
ICBN stands for International Code for Botanical Nomenclature.
- 3 **(c)**
The framework system of classification in which various taxonomic categories are arranged in an order of logical sequence is called **taxonomic hierarchy**, a taxonomic category of overall taxonomic arrangement. All categories together make taxonomic hierarchy. It is also called Linnaean hierarchy as it was first proposed by **C Linnaeus**. There are seven obligate categories- Kingdom, Division (in plants) or Phylum (in animals), Class, Order, Family, Genus and Species.
- 4 **(d)**
Although Bentham and Hooker's system of classification is not phylogenetic one, yet Ranales placed in the beginning of dicotyledons. The order-Ranales is generally regarded as primitive by most of the leading authors.
- 5 **(c)**
Huxley is known as the father of **neo-taxonomy**.
- 6 **(a)**
The branch of taxonomy, which is based on cytology, is known as **cytotaxonomy**. It includes the cytological study of chromosomes, i.e., number morphology, chromosome behaviour, etc.
- 7 **(c)**
Out of four given categories, class is the largest category. Therefore, can categorises rest three categories; order, family and genus

Kingdom → Division/Phylum → Class → Order → Family → Genus → Species

- 8 **(d)**
John Hutchinson proposed a phylogenetic system of classification in 1926 and 1934 (dicots and monocots) respectively in his book **'The families of flowering plants'** which he revised in 1959.
- 9 **(a)**
National Botanical Research Institute is located at Lucknow.
- 10 **(c)**
The prime source of taxonomic studies is collection and identification of actual specimen. Nomenclature the present scientific method of naming the organism can be completed only when actual specimen is collected and identified
- 11 **(d)**
Biological or scientific name are generally written in italics as these are Greek or Latin words. The first word denotes genus and begins with capital letter, while second words denote species and starts with small letters
- 12 **(c)**
A species is a group of organisms, which are closely related and sharing a common gene pool. **John Ray** (1627-1705) introduced the term 'species' for any whole kind of living thing.
- 13 **(b)**
Mangifera indica, scientific name consists of two words a generic and another specific name. It is binomial system of nomenclature. The first word denoting the genus starts with capital letter, while specific epithets start with small letter
- 14 **(c)**
Metabolism is the sum of all the metabolic activities in body, i.e., anabolism and catabolism. Anabolism is constructive process, while catabolism is a destructive process
- 15 **(a)**
MABP stands for Man and Biosphere Programme
- 16 **(d)**
In a scientific name, the first name denotes/indicates the generic name of the organism, while second name indicates or stands for specific epithet or specific names
- 17 **(b)**
Solanum and *Panthera* are genera of family - Solanaceae and Felidae, respectively
- 18 **(a)**
0.1% mercuric chloride solution are used to prevent fungal attack on herbarium naphthalene and carbon disulphide are common pesticides
- 19 **(d)**
Taxonomic categories are the various grouping levels or rank in classification like kingdom (largest) and species (lowest category). So, here division and phylum are categories
- 20 **(c)**
John Ray (1627-1705) an English biologist described about 18,500 plants in three volumes of

his book of *Historia Generalis Plantarum*

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	D	B	C	D	C	A	C	D	A	C
Q.	11	12	13	14	15	16	17	18	19	20
A.	D	C	B	C	A	D	B	A	D	C

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