

Planet Earth exhibits diversity in every form of life. The humid and warm regions of the earth are extremely diverse and are referred to as the regions of mega biodiversity. Every individual has a unique DNA set up. Species vary greatly in the numerous characteristics they exhibit.

1. Compared to genus, which of the following is less general in characters?

- (a) Family
- (b) Species
- (c) Division
- (d) Class

Answer: (b)

2. For wheat, which of the following combinations is correct?

- (a) Genus *Triticum*, family Poaceae, order Poales, Class Monocotyledonae
- (b) Genus *Triticum*, family Poaceae, order Poales, Class Dicotyledonae
- (c) Genus *Triticum*, family Poaceae, order Sapindales, Class Monocotyledonae
- (d) Genus *Triticum*, family Anacardiaceae, order Poales, Class Monocotyledonae

Answer: (a)

3. Regulation of cells' activity takes place through

- (a) Flow of substances
- (b) Flow of energy
- (c) Flow of hormones
- (d) Flow of smoke

Answer: (b)

4. Assertion(a): "Biological species" concept helps to ask how species are formed

Reason(r): Concept of biological species is centred around the question of how reproductive isolation comes about

- (a) Both (a) and (r) are correct, but (r) is not the explanation for (a)
- (b) Both (a) and (r) are correct, (r) is the correct explanation for (a)
- (c) (a) and (r) both are incorrect
- (d) (a) is true, (r) is incorrect

Answer: (d)

5. The correct sequence of taxonomic categories is:

- (a) Species -> genus -> order -> phylum
- (b) Species -> order -> genus-> kingdom
- (c) Genus -> species -> order -> kingdom
- (d) None of these

Answer: (a)

6. Taxonomic hierarchy refer to

- (a) Classification of species based on the fossil record
- (b) A list of botanists or zoologists who have worked on the taxonomy of a species or group
- (c) a group of senior taxonomists who decide the nomenclature of animals and plants
- (d) Stepwise arrangement of all categories for classification of animals and plants

Answer: (d)

7. Which one of these categories has real existence?

- (a) Species
- (b) Genus
- (c) Kingdom
- (d) Phylum

Answer: (a)

8. A true species comprises of a population

- (a) Interbreeding
- (b) Sharing the same niche
- (c) Reproductively isolated
- (d) Feeding over the same food

Answer: (c)

9. *Nicotiana sylvestris* flowers only during long days while *N.tabacum* flowers only during short days. Under different photoperiods, they can be induced to flower at the same time and can be cross-fertilized to produce self-fertile offsprings. What is the best reason for considering *Nicotiana sylvestris* and *N.tabacum* as separate species?

- (a) They are reproductively distinct
- (b) They fail to interbreed in nature
- (c) They are physiologically different
- (d) They are distinct morphologically

Answer: (b)

10. One of the first acts in taxonomy is

- (a) Identification
- (b) Description
- (c) Naming
- (d) Classification

Answer: (a)

