

BIODIVERSITY

- The simplest measure of species diversity is**
 - Species richness*
 - species evenness
 - exotic nature
 - endemism
- The peak of species richness over the globe is present in**
 - Between 20° N and 40° N
 - between 20° N and 30° N*
 - Between 20° S and 40° S
 - between 20° S and 30° S
- The site of active speciation is**
 - Area rich in number of species
 - area rich in evenness
 - Area rich in endemism*
 - area rich in common species
- A bio-geographic area that is the reservoir of biodiversity and threatened with destruction is**
 - Biotope
 - ecological niche
 - ecorealm
 - biodiversity hotspot *
- The measure of overall diversity in an area is known as**
 - Alpha diversity
 - beta diversity
 - gamma diversity*
 - delta diversity
- Which statement among the following is correct related to species diversity?**
 - Species diversity increases from equator to Polar Regions.
 - Species diversity is more at higher latitudes than lower latitudes.
 - Species diversity decreases from polar region to equator
 - Species diversity increases from Polar Regions to equator. **
- Rivet popper hypothesis to explain the significance of species diversity in ecosystem is given by**
 - Malthus
 - Von Humboldt
 - Paul Ehrlich*
 - Odum
- Most species-rich taxonomic group among animals is**
 - Insecta*
 - Mollusca
 - Annelida
 - Chordata
- The tropics which harbour more species than temperate or tropic regions extend between**
 - 30° N – 30° S
 - 23.5° N – 23.5° S*
 - 40° N – 30° S
 - 13.5° N – 13.5° S
- Less year to year variation in total biomass in the areas with more species is observed by**
 - Von Humboldt
 - Paul Ehrlich
 - Robert May
 - David Tilman*
- The largest bio-geographical division of the earth's surface with historic and evolutionary common type fauna and flora is**
 - Ecological region
 - Eco-zone*
 - Biodiversity hot spot
 - Biotope

12. Cryopreservation means

- 1) Preservation of genome at normal temperature
- 2) Preservation of genome at -196°F
- 3) Preservation of genome at $+196^{\circ}\text{C}$
- 4) Preservation of genome at -196°C^*

13. The first National Park in India

- 1) Kanha National park
- 2) Jim Corbett National Park*
- 3) Gir National park
- 4) Keoladeo National Park

14. The species diversity between two ecosystems is

- 1) Alpha diversity
- 2) global diversity
- 3) gamma diversity
- 4) beta diversity**

15. Match the following

EXTINCT ANIMAL

COUNTRY

A) Thylacine

I) Russia

B) Dodo

II) Africa

C) Steller's sea cow

III) Mauritius

D) Quagga

IV) Australia

- | A | B | C | D |
|---------|-----|----|------|
| 1) IV | II | II | I |
| 2) IV | III | I | II** |
| 3) III | IV | II | I |
| 4) IIII | I | IV | |

16. World Summit on Sustainable Development in the year 2002 was held at

- 1) Rio de Janeiro
- 2) Manchester
- 3) Johannesburg*
- 4) New Delhi

17. Red Data Books are published by

- 1) WWF
- 2) IUCN**
- 3) IBW
- 4) CI

18. Types of species in two different communities/ecosystems are given below

Community A = a, b, c, d, f, g & h

Community B = c, d, e, h, i, j & k

Calculate Sorensen's similarity index

- 1. 2.14
- 2. 0.112
- 3. 0.214 **
- 4. 0.414

19. Read the following

PRODUCT	EXTRACTED FROM	PURPOSE
A) Quinine	Bark of <i>cinchona</i>	Antimalarial drug
B) Vinblastin	Fox glove plant	Anticancer
C) Digitalin	<i>Vinca</i>	To treat heart problem
D) Pyrethrin	<i>Bacillus thuringiensis</i>	Biodegradable pesticide

Correct combination is

1. Only A ** 2. A & B 3. A & C 4. A & D

20. Read the statements

- I) Species diversity depends on both richness and evenness
 II) Species richness increases from high latitudes to the low latitudes
 III) Diversity within a particular area is beta diversity
 IV) Overall diversity for different ecosystems within a region is alpha diversity

Correct statements among the above

1. I & IV 2. II & III 3. I & II ** 4. All

21. Match the following

CATEGORIES	EXAMPLE	A	B	C	D
A) Critically endangered (CR)	i) <i>Antelope cervicapra</i>	1. iii	i	ii	iv
B) Vulnerable (VU)	ii) <i>Raphus cucullatus</i>	2. iii	i	iv	ii*
C) Endangered (EN)	iii) <i>Podophyllum</i>	3. ii	iii	iv	i
D) Extinct (EX)	iv) <i>Sideroxylon grandiflorum</i>	4. i	ii	iii	iv

22. World heritage sites of biodiversity in India are

- A) Khaziranga National Park; Gir National park; Keolado Ghana National park
 B) Sunderbans National Park; Kanha National park; Periyar National park; Jim Corbett N.P
 C) Manas National park; Nanda Devi National park; Keolado Ghana national park **
 D) Nanda Devi National park; Kanha National park; Manas national park

23. The seeds that do not survive the reduction of moisture and exposure to the low temperature are

1. Recalcitrant seeds like cereals and legumes 2. Orthodox seeds like cocoa, tea and coconut
 3. Orthodox seeds like cereals, legumes *4. Recalcitrant seeds like Coconut & Jackfruit

24. The zone of biosphere which is used to accommodate resource management strategies, research and educational activities is

1. Core zone 2. Transition zone 3. Buffer zone** 4. Sanctuary

25. World's first captive breeding of crocodiles is present at

1. Indravathi, Chattishgarh 2. Tikerpada, Orissa **
 3. Nanda Devi, Uttarakhand 4. Periyar, Kerala

26. Wild life week is observed on

1. First week of September
2. Second week of October
3. First week of October **
4. First week of August

27. Biogeographic region that is both a significant reservoir of biodiversity and threatened with destruction

1. National park
2. Sanctuary
3. Biodiversity hotspot **
4. Ecozone

28. Correct statements among the following

- A) Tropical forests harbor more than 50% of biodiversity
- B) Over 70% of the promising anticancer drugs come from plants in the tropical rain forests
- C) About 62% of the known amphibian species are endemic with the majority occurring in the Western Ghats in India
- D) Nearly 50% of the lizards of India are endemic with a high degree of endemism in the Eastern Ghats

1. All except D **
2. A & D only
3. C & D only
4. D only

29. Read the following

- I) Limited biotic interference is allowed
- II) Ecotourism is permissible
- III) Boundaries are legally declared
- IV) Private ownership is not allowed
- V) Boundaries are not circumscribed
- VI) Biotic interference is not allowed

Which of them are applicable to National Parks?

1. I, II & III
2. II, III, IV & VI **
3. I, III & IV
4. I & IV

30. Who observed that within a region species richness increased with increasing explored area, but only up to a limit?

1. Ehrlich
2. Humboldt**
3. Norman Myers
4. Tilman

ASSERTION & REASON:

- 1) Both A and R are true, and the R is the correct explanation to A
- 2) Both A and R are true but R is not the correct explanation to A
- 3) A is true but R is false
- 4) Both A and R are false.

31. Assertion: at lower latitudes, the species diversity is more.

Reason : at lower latitudes, area is topographically more and diverse environmentally. Answer: 1

32. Assertion: the biological diversity changes with the latitudes.

Reason : environmental conditions are uniform at all latitudes. Answer: 3

33. Assertion: Beta diversity is the community diversity.

Reason : Beta diversity is the diversity of the organisms present in same community

Answer: 3