

Solved Mid – Sem 2023 ESC 205 A QP

1. Fill in the blanks

- i. Magma consists of(not molten under pressure) **Iron-Nickel**
- ii. Agricultural practices started almost years ago. **10000**
- iii. Lentic refers to
lake, pond or swamp, Stagnant water
- iv. Detritus food chain – Starts with dead **animals /organic matter**
- v. The least amount of energy is found at..... of the pyramid in the Trophic level. **top**
- vi. Ecology is the study of ,, ,, ,, ,, ,, ,, ,, **ecosystems, if written definition give marks**
- vii. A trophic refers to **.food and nutrition**
- viii. Saprotrophs are **decomposers**
- ix. Simpson's Diversity Index is a measure of diversity which takes into account the number of species present, as well as theof each species
relative abundance .
- x. Tropical forests are denser than the forests. **temperate**

2. Which of the following is correct :

- a. Examples of Terrestrial Biodiversity one of the following :
1.tropical rainforests, 2.oceans, 3. Drains, 4. None of these **1**
- b. Marine diversity is even much higher than the
1.rural diversity, 2. terrestrial diversity, 3.immunological systems, 4. None of these. **2**
- c. Species which are restricted only to a particular area are known as
1. endergonic, 2. divergent, 3. endomonic, 4. none of these **4**
- d. Poaching is another threat to
1. depreciation,2. Synthesis, 3. Wild life, 4. none of these **3**
- e.Faunal analysis refers to the analysis of
1. plant remains, 2. animal remains, 3. algae, 4. none of these. **2**
- f. Ex-situ conservation involves :
1. gene bank, 2. animal habitats, 3. mineral matter, 4. none of these.
1
- g. Pitcher plant is a plant in Northeast India which eats
1. fruits, 2. flowers, 3. Insects, 4. none of these **3**
- h. Forest cover in India is just
1. 2 % of the world area, 2. 2 % of world forests, 3. 21 % of world forest cover, 4. none of these. **2**
- i. Water poor countries include
1.Brazil, 2. Argentina, 3. Saudi Arabia,
4.none of these **3**

j. A layer of sediment or rock that is highly permeable and contains water is called an 1. Sedimentation , 2. humous, 3., aquifer, 4. none of these. **3**

3. Answer true or false

i. Hysterical strength is displayed during the hysteria disease. **False**

ii. Hormones cortisol and adrenaline are excreted during the display of hysterical strength. **True**

iii. Goat is not bovine animal **False**

iv. Vishakhapur National Park Bishnupur is the only Floating park in the world. **False**

v. Columbia is a water deficient country in the world. **False**

vi. There is more groundwater than fresh water in this world. **False**

vii. Critical minerals are essential for the defence of a nation. **False**

viii. Cr 3+ is more toxic than Cr 6+. **False**

ix. The IUCN stands for International Union for Community of Nations. **False**

x. The Eastern Himalayas and Western Ghats are hot spots of biodiversity in India. **True**

xi. According to Myers et al. (2000) an area is designated as a hotspot when it contains at least 5% of the plant species as endemics. **False**

xii. Beta (β -) richness refers to the rate of change in species composition across different habitats. **True**

xiii. The tropical rainforests are the earth's largest storehouse of biodiversity. **True**

xiv. Biome is an area that includes communities of plants and animals that have a common adaptation to that particular environment. **True**

xv. What would happen if we destroy the ecological diversity?

More diseases, water shortage, human lives would be very hurt badly.

xvi. What is the formula of for the Shannon Wiener Diversity Index (H)?

The Shannon-Wiener Diversity Index, H, is calculated using the following equation: $H = -\sum P_i \ln P_i$ where P_i is the proportion of each species

xvii. Describe the formula of the relation between the β , γ and α diversity.

β diversity = γ/α

xviii. What gases do Chemoautotrophs use instead of glucose ?

CO₂

xix. What % of medicines in allopathic system have originated from natural products?

About 35 %

xx. What technological developments are taking place in the Fifth industrial Revolution period?

AI, Environment and robotics etc.