First examination or practical Ecology – Biology Department, 3rd stage

Q1./ Put (T) for true and (F) for false sentences: (Answer only 12) 36 Marks

1. The quantitative & qualitative are structural characters which are not directly observed in the field. (F).
2. The relative humidity in the laboratories is measured by Psychrometer. ( T)
3. Stratified sampling can be performed by two ways including Line Transect Method and Belt Transect Method. (F).
4. The layer which contains the ozone layer is called as Stratosphere. ( T )
5. The degree of clarity of freshwater can be measured by used Secchi disk. ( T )
6. The [atmospheric](http://www.blurtit.com/q579503.html) condition over a small area and a short period of time is called climate (F)
7. Autecology studies the dynamics of populations of a single species or a group of species (T).
8. The synthetic characters are based up on the data obtained for analytical characters. ( T ).
9. The relation between two organisms, one of which harmed while the other remains unaffected is called as Commensalisms. (F).
10. Each species of an organism which live in any place on the earth is called population (F).
11. The ratio of Nitrogen reservoir in the atmosphere is about 78% (T )
12. In order to avoid biased samples, randomly sampling is carried out T

Q2/ Choice the right answer for following: (Answer only 12 ) 36 Marks

1. Height of stratosphere is : A. 0-12 km B. 12-50 km C. 50-80 km D. Above 80 km
2. Fertile soil is rich in \_\_\_\_\_\_\_\_\_. A. Conservation B. Bedrock C. Water D. Nutrients
3. The flows of energy and matter through the biotic and abiotic components is known as Ecosystem ecology
4. Synecology B. [Landscape ecology](http://en.wikipedia.org/wiki/Landscape_ecology) C. Autecology D. [Ecophysiology](http://en.wikipedia.org/wiki/Ecophysiology) E. Ecosystem ecology
5. . The animal that is hunted and killed for food.: A. Prey B. Decomposer C. Scavenger D. predator
6. The living weight of the organisms in the ecosystem at any given time is called……………………A. Biome B. Habitat C. Biomass D. Biodiversity
7. Which type of soil can hold the greatest amount of water? A. sand B. silt C. clay D. Loam
8. This occurs when organisms try to get the same resources. A. symbiosis B. competition C. predation D. parasitism
9. The temperature decreases with altitude in the ……………………layer. A. mesosphere B. stratosphere C. Troposphere D. Atmosphere
10. Without plants animals cannot A. survive B. grow C. develop D. evolve
11. Humus is ……………………factors of an Ecosystem A. Chemical B. Physical C. Biological D. All of them
12. What is the name of feature that allow organisms to survive in the conditions of its habitat: A. Adjustment B. Adaption C. Acclimatization D. Adaptive variation.
13. …………………….is an instrument that continuously records changes in atmospheric pressure. A. Hygrograph B. Altimeter C. Anemometer D. Barograph
14. Thermocouples are often chosen because of: A. High accuracy B. Ability to measure high temperatures C. Economy D. Ability to measure an extremely narrow span of temperature.

Q3/find the percentage of Density of species D and B and Frequency of species C , A Abundance of E and F in which the minimum size of quadrate is 60 cm2 with mentioned the minimum number of quadrate? 28 Marks

E C H C D A D H

A B C N G B H C

C D B F E B C F A E A D

F B A E C B G K H B C D C A

D = 5 B= 7 C = 9 A = 6 E = 4 F = 3

1. Each species of an organism which live in any place on the earth is called population (F).
2. The relation between two organisms, one of which benefited while the other remains unaffected is called as Commensalisms. (T).
3. The number of species in the quadrate and their occurrence are called as abundance (F).
4. The [atmospheric](http://www.blurtit.com/q579503.html) condition over a small area and a short period of time is called climate (F)
5. Autecology studies the dynamics of populations of a single species or a related group of species (T).
6. Atmosphere can act as protection from smaller meteorites that burn up by heating from the friction when entering the Earth's atmosphere and can not reach the surface (T).
7. Carbon dioxide compose about 0.934% of the earth's atmosphere (F).
8. During the study of aquatic microorganisms or water chemistry, we should collect water samples in standardized bottles or containers (T).
9. Stratified sampling can be performed by two ways including Line Transect Method and Belt Transect Method. (F).

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Q2./ Fill the blankets with proper answers:

1. The synthetic characters are based up on the data obtained for analytical characters.
2. The relative humidity in the laboratories is measured by Psychrometer.
3. Is the science that deals with the study of ecology of individual is called Autecology.
4. The degree of clarity of freshwater can be measured by used Secchi disk.
5. The living weight of the organisms in the ecosystem at any given time is called Biomass.
6. List of plants living in an ecosystem of defined area is called Flora.
7. The layer which contains the ozone layer is called as Stratosphere
8. The current temperature, [relative humidity](http://www.theweatherprediction.com/habyhints/190/), cloud cover and precipitation are examples of weather.
9. Mesosphere is about 50 to 80 km, the temperature drops in this layer to about -100 degrees Celsius. This is the coldest region of the atmosphere.
10. Hygrograph is an instrument used for measuring humidity for 24 hr or more.

Q4./By using equations, find the percentage of density, frequesncy and abundance for plant A, C , with drawing the curve which represent the minimum number of quadrate:

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A C B A  F D B A |  | B D F  A C |  |  |  | F G A B  C  E |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| B C A A  C D C  C |  | C B A D  C F B  C |  | F G A B  C  D A E |  | A C B A  F D B A |  | C B A D  C F B  C |  |