

100 Definitions - Assignment Biol 527

SO - Provided Terms

- 1) Abiotic : Non-living chemical and physical components of the environment (e.g., temperature, light, water).
- 2) Agent : A factor that can cause disease e.g. A microorganism.
- 3) Airborne : Transmission of infectious agents through air.
- 4) Association : A statistical relationship between two or more events, characteristics or other variables.
- 5) Bioaccumulation : The gradual accumulation of substances, in an organism such as pesticides.
- 6) Bioavailability : The degree and rate at which a substance is absorbed into a living system.
- 7) Biomagnification : The increasing concentration of a substance, such as a toxic chemical, in the tissues of organisms at successively higher levels in a food chain.
- 8) Biomarker : A measurable indicator of some biological state or condition.

q) Biotic : Living components of the environment e.g. ~~elements~~ animals and plants.

ii) Carrier : An individual who harbors a pathogen and can spread it to others, often without showing symptoms.

iii) Chronic : A disease or a condition that persists over a long period of time.

iv) Contagious : Capable of being transmitted from one individual to another.

v) Disease : A disorder of function or structure in a human, animal, or plant, especially one that produces specific symptoms.

vi) Dose : The quantity of a substance taken into the body.

vii) Endemic Disease : A disease that is consistently present in a population.

viii) Epidemic : A widespread occurrence of an infectious disease in a community at a particular time.

17) Epidemiologic Triad : A model that includes three key components which are : the agent, host and the environment - in order to understand the causation of infectious diseases.

18) Epidemiology : The study of the distribution of determinants of health related states in populations .

19) Health : A state of complete physical, mental and social well-being .

20) Immune System : The body's defense system against infections and foreign substances .

21) Incidence Rate : The rate at which new cases of a disease occur in population .

22) Infection : the invasion of body tissues by pathogens, which may cause disease .

23) Lesion : Any abnormal change in tissue or an organ due to disease or injury .

24) Morbidity : The condition of being diseased

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- 25) Outbreak : A sudden rise in the incidence of a disease.
- 26) Noninfectious : Something / Disease not caused by infectious agents
- 27) Pandemic : An epidemic that has spread across a large geographic area, such as Globally.
- 28) Pathogen : An organism or substance capable of causing disease
- 29) Prevalence : The total number of cases of a disease in a population at a given time.
- 30) Reservoir : The habitat in which an infectious agent normally lives and multiplies.
- 31) Risk : The probability of an event occurring, such as the development of a disease.
- 32) Risk factor : A characteristic that increases the likelihood of developing a disease or injury ~

33) Sensitivity : The ability of a test to correctly identify those with a disease.

34) Sentinel : An organism or population that is sensitive to environmental changes, often used as an early warning system.

35) Sporadic : Occurring irregularly or in scattered instances.

36) Stressor : Any factor that can induce stress in an organism.

37) Subacute : A condition that is less severe in intensity but of longer duration than an acute disease.

38) Surveillance : The ongoing systematic collection, analysis and interpretation of health data.

39) Susceptibility : The likelihood of being affected by a disease or condition.

40) Toxicant : A toxic substance introduced into the environment, often by human activity.

u1) Toxin : A poisonous substance produced by organisms that can cause harm to others.

u2) Direct Transmission : The immediate transfer of an infectious agent from an infected individual to a susceptible individual.

u3) Horizontal (Lateral) Transmission : The transmission of disease between individuals of the same generation.

u4) Indirect Transmission : Transmission of an infectious agent via an intermediate object or organism.

u5) Vector Transmission : The transmission of an infectious pathogen via a vector, (e.g. rats)

u6) Vehicle Transmission : The transmission of disease through contaminated inanimate objects.

u7) Vertical Transmission : The transmission of an infection from parent(s) of an offspring.

u8) Vector : An organism, typically an insect, that transmits a pathogen from one host to another.

48) Virulence : The degree of pathogenicity or disease-causing potential of an organism.

49) Zoonosis : A disease that can be transmitted from animals to humans.

Additional 50 terms

50) Adaptive immunity : Immunity that develops as a response to exposure to a pathogen

51) Anthropogenic : Anything that is caused or influenced by humans.

52) Asymptomatic : Showing no symptoms of disease despite being infected.

53) Biodiversity : The variety of life in the world or in a particular habitat or ecosystem.

55) Biogeography : The study of the distribution of species and ecosystems in geographic space and through time.

56) Bio surveillance : The monitoring of disease trends and outbreaks in populations.

57) Climate Change : Long-term alteration in temperature and weather patterns, primarily due to human activities.

58) Sentinel Species : Species that serve as indicators of environmental health.

59) Endocrine Disruptor : Chemicals that can interfere with endocrine systems

60) Species richness : The number of different species represented in an ecological community.

61) Eutrophication : The process where water bodies become enriched with nutrients, leading to excessive and excessive plant growth and oxygen depletion.

62) Reproductive Rate (RD): The average number of secondary infections produced by one infected individual in a susceptible population.

63) Spillover : The transmission of a pathogen from one species to another, often crossing species barriers.

64) Ecotone : A transition area between two biological communities.

65) Vector-borne Disease : An infectious disease transmitted by vectors such as mosquitoes or ticks.

66) Threshold : The level at which a system undergoes a significant change.

67) Invasive Species : Non-native species that spread rapidly in a new environment and can cause harm to native species and ecosystem.

68) Nutrient Cycle : The movement and exchange of organic and inorganic matter back into the production of living matter.

- 69) Malnutrition : A condition caused by a diet lacking in essential nutrients.
- 70) Immunocompromised : Having an impaired or weakened immune system
- 71) Mutation : A change in the DNA sequence of a gene.
- 72) Trophic Cascade : A process by which predators at high levels of a food chain indirectly affect the populations at lower levels.
- 73) Commensalism : A relationship between two organisms where one benefits and the other is neither helped nor harmed.
- 74) Conservation : The protection, preservation, and management of ecosystems and wildlife.
- 75) Ex-situ Conservation : The conservation of species outside their natural habitats.
- 76) Ecological Niche : The role and position a species has in its environment

77) Phenology : The study of the timing of biological events in plants and animals.

78) Vulnerability : The degree to which a system or population is susceptible to harm.

79) Ecology : The study of interactions between organisms and their environments

80) Wildlife Corridor : A natural area that connects wildlife populations separated by human activities or structures.

81) Pathogenicity : The ability of an organism to cause disease.

82) Natural Selection : The process by which organisms better adapted to their environment tend to survive and produce more offspring.

83) Latency : The period when a pathogen is present in the body but not actively causing disease.

84) Seroprevalence : The level of a pathogen in a population, as measured in blood serum.

85) Population Dynamics : The study of how populations of species change over time and space.

86) Incubation period : The period between exposure to a pathogen and the onset of symptoms.

87) Permafrost : Ground that remains frozen for more than two consecutive years.

88) Symbiosis : A close and often long-term interaction between two or more species.

89) Pollutant : A substance that contaminates the environment.

90) Emerging infectious Diseases : New or re-emerging infections that have recently increased in incidence or geographical range.

- q1) Resilience : The ability of an ecosystem to recover from disturbances .
- q2) Host : An organism that harbors a parasite, pathogen, or mutualistic partner .
- q3) Tropic Level : The position an organism occupies in a food chain .
- q4) Resistance : The ability of an organism to defend against a pathogen or toxin .
- q5) Salinization : The accumulation of salts in soil or water, often caused by irrigation .
- q6) Thigmotropism : The directional growth of an organism in response to touch .
- q7) Xenobiotic : A chemical substance that is foreign to a biological system .
- q8) Sustainability : The ability to maintain ecological processes over long periods .

99) Wildlife Corridor : A natural area that connects wildlife populations separated by human activities or structures.

100) Ecotoxicology : The study of the effects of toxic chemicals on biological organisms.