Entrance examination for grade 12 from 1995 – 2011

Grade 12 Unit 2

Ecology

1, Which aspects of biodiversity is best covered in a study that assess the abundance of species in a given area?

A, Species diversity B, genetic diversity C, Ecosystem diversity D, cultural diversity

2, Which global problem of environment results from materials added to it by human action?

A, Hunting in protected area B, Pesticide accumulation

C, Deforestation in a natural forest D, habitat loss

3, Choose the appropriate terminology for an ecological association between two species of organisms living together where one is benefited and the other remain an affected

A, Amensalism B, commensalism C, Mutualism d, neutralism

4, Which ecosystem in Ethiopia has forest coffee in it?

A, lowland dry forest ecosystem B, dry ever green montane ecosystem

C, Afroalpine ecosystem D, Moist evergreen montane ecosystem

5, What is the name of the major agricultural system in Ethiopia where cereals and other grain crops are most dominant?

A, Enset planting complex B, Seed farming complex C, Pastoral complex D, Shifting cultivation

6, What is the technical term for science of rearing fishes under controlled conditions?

A, Sillviculture B, Apiculture C, Fisheries D, Pisciculture

7, which of the benefits of biological diversity comes under benefits of ecosystem service?

A, Recreational value B, Aesthetic value C, Cultural value D, Nutrient storage and cycling

8, Choose the biome that contains the greatest diversity of life?

A, Desert B, Tropical rainforest C, Temperate forest D, Temperate grass land

9, Which of the following is important in classification of the ecosystem of Ethiopia?

A, Amount of rain fall B, Altitude C, Major vegetation types D, Major cell types

10, Of the following biomes of the world which one has the highest primary productivity?

A, Tropical rain forest B, temperate grass land C, temperate forest D, Savannah

11, What is the main difficulty for accepting that barley was domesticated in Ethiopia?

A, Poor genetic variation of coffee in Ethiopia

B, Barley is cultivated in other countries

C, Ethiopian farmers still cultivate barley in traditional way

D, Wild relatives of barley have not been found in Ethiopia

12, Which of the following is biological method of pest control?

A, cleaning the breeding ground of the pest

B, spraying insecticide

C, Fumigating stored grains

D, introducing natural enemies of the pest

13, Which of the following terms best includes all the rest?

A, Herbivores B, Carnivores C, Omnivores D, Heterotrophs

14, Which ecological interactions between two species result in negative effect on both organisms?

A, Mutualism B, Competition C, Predation D, Neutralism

15, Choose the animal group that is represented in Ethiopia by a higher proportion of endemic species in relation to the total number of species of that animal group found in the country?

A, Birds B, reptiles C, Amphibians D, Fishes

16, Which term applies to the rearing of fish under more or less controlled condition?

A, Agriculture B, Pisciculture C, Silviculture D, Aaquaculture

17, Based on our mode of nutrition, to which of the following groups do we humans belong?

A, Omnivores B, Carnivores C,. Herbivores D, Autotrophs

18, What is the best term used to refer to the association of different species of organisms interacting and living together?

A, Ecosystem B, Community C, Pyramid D, Niche

19, To which trophic level do plants belong?

A, zero B, first C, second D, third

20, Which of the following crop species is not an oil crop?

A, Guizatia abyssinica B, Arachis hypogaea C, Lens culinaris D, Sesamum indicum

21, What is the method of conservation in which animals are kept in captivity and plants are grown in botanical garden?

A, In situ conservation B, Zoo conservation

C, Ex situ conservation D, Complementary in situ and Ex situ conservation

22, In which region of Ethiopia would you look for an ecosystem dominated by lowland dry forest?

A, Afar region B, Somali region C, Gambella region D, Southern region

23, In life cycle of a moss plant, Which of the following is diploid?

A, Gametophyte generation B, Sporophyte generation C, Protonema D, Spores

24, Which of the following illustrates loss of biodiversity?

A, The death of an individual insect that belongs to a successful successful species

B, A complex forest ecosystem is converted to a field of modern high yielding crop variety

C, A new plant species is introduced from a neighboring country and becomes part of the flora

D, A species develops a number of distinct varieties

25, To which category of biodiversity would taxonomic diversity be grouped at best?

A, Genetic diversity B, Species diversity C, Ecosystem diversity D, Cultural diversity

26, Which of the following world biomes has the least amount of primary productivity per m^2/year?

A, Tropical rain forest B, temperate forest C, Temperate grass land D, tropical grasslands

27, Which tree genera is found in open forest of the Ethiopian lowland?

A, Podocarpus B, Pauteria C, Acacia D, Juniperus

28, Choose the alternative that include crops in the same crop category

A, Tef, faba, beans, enset B, Noug, orange, pepper

C, Linseed, sesame, sunflower D, Coffee, ginger, papaya

29, Which of the following depicts a more complete concept of biodiversity?

A, All natural resources of the globe B, Everything the biosphere

C, The variety of life, genes and their habitats D, All domestic plants and animals taken together

30, In primary succession which of the following plant types are the pioneer colonizer?

A, Herbs B, Shrubs C, Lichens D, Mosses

31, In Ethiopia which of the following animal group has the highest percentage of endemic species?

A, Reptiles B, Amphibians C, Fresh water fish D, Birds

32, If destroyed which of the following result in the biggest loss of the world biodiversity?

A, Temperate evergreen forest B, Savannah woodlands

C, Temperate deciduous forest D, Tropical rain forest

33, In food chain consisting of Grass →Rodents → Snakes → Birds, Which groups contains the least amount of food energy?

A, Grass B< Rodents C, Snakes D, Birds

34, Which of the following contains members of single species?

A, Ecosystem B, Biosphere C, Population D, community

35, Which of the following groups of microorganisms convert nitrogen compounds in the soil to atmospheric nitrogen?

A, Nitrogen fixing bacteria B, Nitrifying bacteria C, Denitrifying bacteria D, Cyanobacteria

36, Which of the following ecological pyramid presents the weight of living materials available at different trophic level?

A, Pyramid of number B, Pyramid of biomass C, Pyramid of energy D, Inverted pyramid of number

37, Suppose in a population of 1000 individuals 100 new individuals were born and 50 died, what is the percentage growth of the population?

A, 2,5% B, 5% C, 15% D,50%

38, What is the term for species that is found in one particular country only?

A, Endemic species B, Geographic species C, Exotic species D, Indigenous specious

39, In life cycle of ferns, which of the following is the largest?

A, Sporophyte generation B, Gametophyte generation C, Sporangium D, Gametogonium

40, Which of the following forms the base of an ecological pyramid?

A, Herbivores B, Decomposers C, Omnivores D, Producers

41, Which of the following could be better example of mutualism?

A, Flies on dog B, A lion preying on buffalo

C, A beetle living on elephant dung D, A butterfly feeding on the nectar of the flower

42, To which of the following kingdom would you classify lichen?

A, Plantae B, Protista C, Monera D, Fungi

43, One of the following measures will be effective to reduce human population growth rate in Ethiopia?

A, open more school B, Operant conditioning

C, Provide better health care D, Expand family planning programme

44, Of the following, choose the consumer that feeds on waste material and other remains of organisms within the food chain

A, Predator B, Scavenger C, Decomposers D, omnivores

45, Which stage in the life cycle of lepidopteron insect pests cause more damage to crop plants?

A, Pupa B, Adult C, egg D, Larvae

46, From which flower structure fruit normally derived?

A, Anthers B, Petals C, Pistil D, Receptacle

47, Which measure would you not recommend as a means to protect Ethiopian ecosystem and their biodiversity?

A, In situ conservation

B, Gazettement of the protected rehabilitation

C, Ecosystem restoration and rehabilitation

D, Human encroachment into the natural ecosystem

48, The gametophyte generations of angiosperms are

A, Pistil and stamen B, Ovary and anther

C, Endosperm and embryo D, Embryo sac and pollen grain

49, Which cattle breed is commonly found in Ethiopia?

A, Abigar B, Ayrshire C, Kerry D, Norwegian red

50, Which one of the following shows the main advantage of ploughing leguminous crops such as beans in the soil?

A, Controlling soil erosion B, Conserving moisture in the soil

C, improving the level of nitrates in the soil D, Controlling weeds growing in the farmland

51, Which Ethiopian lake ids well known for its high species of the fish known as barbus?

A, Lake awassa B, Lake chamo C, Lake tana D, Lake zeway

52, The stage of metamorphosis observed in an organism which is different from insect is

A, Nymph B, Larvae C, pupa D, Tadpole

53, Which of the following is the primary source of energy for all the others?

A, Herbivores B, producers C< Omnivores D, Decomposers

54, The adult frog in the pond feeds on insects. What type of consumer is the frog?

A, Carnivore B, Herbivore C, parasite D, saprophyte

55, Which organism has the longest gestation period?

A, Human B< cattle C, Giraffe D, elephant

56, Which of the following food chain can result in inverted pyramid of number?

A, Grass→ Rabbit Foxes B, Tree → Birds → Parasite of birds

C, Tree → Monkey → Leopard D, Grass → Insects → birds

57, The chameleon is known to evade capture by its enemies as it mimics the back ground environment in which it is found. This can be taken as an example of which characteristics of life?

A, Organization B, Growth and development

C, Adaptation D, Maintenance of internal body condition

58, Which of the following trophic levels contains the least amount of total energy in an ecosystem?

A, First trophic level B, Second trophic level Third trophic level D, Fourth trophic level

59, For which of the following species of cultivated plants is Ethiopia generally believed to be secondary center of diversity

A, Guizotia abyssiica B, Haedeum Vulkgare C, Coffee arbica D, Ensete ventricosum

60, Which of the following insects are important pests of stored grains?

A, Coleopterans B, Migratory locusts C, Butterflies D, Grasshoppers

61, Which of the following leguminous crops ranks first in its annual production in Ethiopia?

A, Horse bean B, Chickpea Haricot bean D, Lentil

62, Which livestock group has the highest population in Ethiopia?

A, Cattle B, camels C, Goats D, Sheep

63, In ecosystem between which of the following airs is interspecific competition expected to be strongest

A, Producers versus herbivores B, herbivores versus carnivores

C, Producers versus decomposers D, Carnivores versus carnivores

64, In which biome ephemerals most typically found?

A, Savanna B, tropical rain forest C, Taiga D, Desert

65, Which agricultural practice is least related to biological pest control system?

A, The chemical method B, the crop rotation method

C, The mixed cropping method D, the method of cleaning fields and removing crop residue

66, Which of the following groups of animals has external fertilization?

A, Marsupials B, birds C, Reptiles D, frogs

67, What is the appropriate term that collectively refers to the fungi and bacteria that change the dead organic matter to the small elemental units?

A Producers B, carnivores C, Autotrophs D, Decomposers

68, Which primary germ layer of chordate animals produces the organs like liver, pancreas and lungs?

A, Ectoderm B, Blatoderm C, Mesoderm D, Endoderm

69, Which one of the following term is used to refer to the maximum number of individuals that a given environment can support over a long period of time without degradation of the environmental resources?

A, Limiting factor B, carrying capacity C, Climax community D, density

70, Which biome of the world is characterized by less than 250mm of annual rain fall and plants called ephemerals?

A, Desert B, Deciduous forests C, Coniferous forests D, tropical rain forest

71, Which of the following approaches of pest control is considered biological contro?

A, Crop rotation B, Fumigation to kill pests

C, using natural enemy of the pest D, combining all methods of pest control available

72, Which of the following global biomes would you classify the upper part of the Bale mountains environment?

A, Desert biome B, deciduous forest biome C, Alpine biome D, Savanna biome

73, Which one of the following is true about population whose size is maintained at the carrying capacity of the environment?

A, It grows at its biotic potential

B, Its growth rate eventually decline

C, it overshoots the environmental resistance

D, It maintains dynamic equilibrium with the environment

74, Which of the following is the starting point of primary succession?

A, Abandoned farm land B, Forest destroyed by fire

C, Forest cleared by humans D, Land never been colonized before by life

75, Which groups of organisms show double fertilization?

A, Ferns B, Bryophytes C, Lower plants D, Angiosperms

76, Which mammalian pest has economic importance in Ethiopia?

A, quelea B, Beetles C, Rodents D, Desert locust

77, Which of the following sources of energy is renewable?

A, Mineral coal B, Petroleum C, Bio fuel such as ethanol D, Natural gas such as methane

78, Which group of two words means the same in meaning?

A, Autotrophs and producers B, Autotroph and consumer

C, Autotroph and carnivore D, Heterotrophs and producers

79, In which biome of the world are epiphytes and lianas commonly found?

A, Savanna B, Desert C, Tundra D, Tropical rain forest

80, In alternation of generation, which phase of life cycle of the plant is diploid generation?

A, The gametophytes B, Thee gametes C, The sporophyte D, the protionema

81, The alkaloid that is consumed when you drink tea is

A, Nicotine B, Cocane C, Hashish D, Caffeine

82, The name given to the pioneer plants that begin primary succession on very dry substratum like bare rock, sand dune, or cooled volcanic lava is

A, Hydrophytes B, Mesophytes C, Halophytes D, xerophytes

83, In which biome of the world are ephemerals and succulents more common?

A, Savanna B, Desert C, Deciduous forest D, Temperate forest

84, In order for population to grow at its biotic potential, which one of the following should be available?

A, Strong environmental resistance B, Maximum density dependent effect

C, Maximum density independent effect D, Unlimited supply of resource

85, Identify the ability of the camel that allows it to survive in desert environments where there is lower waste supply?

A, Fluctuation of the body temperature to save water by reducing evaporation

B, Evaporate more water through the skin to keep itself cools

C, Sleep during the day and feed at night

D, Move in flocks to avoid evaporation of water from the body

86, One of the following is true about mutualistic interaction between two species

A, Both species benefits

B, Both species are harmed

C, One species benefits and the second harmed

D, One species benefits and the second remain unaffected

87, In which aspect of biodiversity are such measures like richness, abundance and taxonomic diversity in population commonly applied?

A, Ecosystem diversity B, cultural diversity Genetic diversity D, Species diversity

88, Which of the following terms is synonymous with producers?

A, Omnivore B, Herbivore C, carnivore D, Autotroph

89, Which aspect of life is grouped into autotrophic in some organisms and heterotrophic in others?

A, The transport system B, The aspect of nutrition

C, Anaerobic respiration D, the coordination system

90, Which of the following processes release oxygen to the atmosphere?

A, Respiration B, Photosynthesis C, Transpiration D, Burning of fossil fuels

91, The concentration of which of the following gases is on the increase in the atmosphere in recent years than before?

A, Carbon dioxide B, Oxygen C, Nitrogen D, Ozone

92, With which type of agricultural crops is nitrogen fixing bacteria more associated?

A, Legumes B, Cereals C, Vegetables D, Fruits

93, Which of the following plant group is good pioneer colonizer in primary successions that start with bare rock?

A, Mosses B, Lichens C, Liverworts D, weeds

94, Which of the following methods of avoiding predation by animals is mimicry?

A, Resembling another organism B, Producing warning colonization

C, Fighting away the enemy D, Running away from the enemy

95, Which stage of life cycle of lepidopterous insect is the pest?

A, Egg B, Larvae C, Pupa D, Adult

96, In an ecosystem, the presence of which of the following groups is essential in order for the other to be present?

A, Autotrophs B, herbivores C, Decomposers D, omnivores

97, What is biome?

A, A group of interacting individuals of the same spices

B, The total life zones of the earth’s surface

C, A group of population that interacts with the physical environments

D, A region of the earth characterized by distinctive life forms

98, What is implied by biological magnification?

A, Increase in the sizes of organisms with increasing trophic level

B, Increase in number of organisms at higher trophic level

C, more concentration of chemicals in organisms of higher trophic level

D, Capture of small organisms by large organisms

99, What does feeding relationship in an ecosystem consists of?

A, Many stages of community succession

B, Always a network of interconnected food chain

C, One organism feeds on another but itself eaten by another one

D, recycling of solar energy between the source and the trophic levels

100, Coffee and tea are normally grouped into which type of substance?

A, Pulses B, Perfumes C, Stimulants d, Grains

101, Which of the following stages happen after all the others during the development of the human embryo?

A, Cleavage B, formation of blastula C, Formation of grastula D, Organogenesis

102, Which one of the following belongs to the category of heterotrophic organisms?

A, Algae B, fungi C, Higher plants d, Mosses

103, In an ecosystem that consists of grass, birds, grasshopper, and frog, which of the following food chain is possible?

A, grass → frog → grasshopper→ r birds

B, Grass→ grasshopper → frog → birds

C, Grass→ birds→ grasshopper→ frog

D, birds→ frog→ grasshopper → grass

104, If a forest is protected in order to conserve wild coffee in the forest, what sort of conservation we call this?

A, In situ conservation B, Ex situ conservation C, On farm conservation D, Cryopreservation

105, In which agricultural system of Ethiopia does the production of grain crops dominate over other crop categories?

A, Shifting cultivation B, Seed farming complex C, Enset planting complex D, Pastoral complex

106, Which of the following makes food webs of an ecosystem different from food chain?

A, the presence of many trophic levels

B, clear sign of cycling of materials

C, Presence of many interconnected food chains

D, the presence of many organisms through which energy passes

107, How do plants contribute to the carbon cycle?

A, When they respire, they release CO_2 in to the atmosphere

B, When they photosynthesize, they consume CO_2 from the atmosphere

C, they do not contribute to carbon cycled

D, only A and B are answer

108, The CO_2 produced during the respiratory cycle and other processes is largely absorbed by which of the following?

A, The ozone layer B, Animals C, Plants D, The sky

109, Which one of the following has unidirectional flow in an ecosystem?

A, Nitrogen B, Carbon dioxide C, Phosphorus D, energy

110, Which term better capture the concept of variety of organisms present in a whole continent as well as all the genus found in them?

A, Niche B, Biodiversity C, Ecosystem D, Biome

111, All other factors remaining the same, which of the following decreases the size of population?

A, Birth rate that is greater than death rate

B, Emigration rate that is less than immigration rate

C, Immigration rate that is greater than death rate

D, emigration rate that is greater than death rate

112, In a given ecosystem, members of which one of the following feeding groups release nutrients that are locked up in organic molecule?

A, Herbivores B, Producers C, carnivores D, decomposers

113, What is biomass?

A, The number of species in a given biome

B, The total weight of living matter in a given area

C, The density of a species in a given area

D, the total energy found in plants and animals in an ecosystem

114, Which one of the following term is most appropriate to collectively refer to all the plants, animals and microorganisms found in munesa forest in Ethiopia?

A, Ecology B, Ecosystem C, Population D, community

115, Which of the following is expected to have positive effect on the biodiversity of Ethiopia?

A, Diverse ecology B, extensive deforestation

C, overgrazing by livestock D, Logging and fuel wood removal

116, How many animals do obtain nitrogen?

A, By absorbing nitrates and ammonia from the soil

B, from the proteins in the organism they consume

C, By absorbing nitrogen gas from the atmosphere

D, through mutualistic relationship with nitrogen fixing bacteria

117, What is the collective name for plants that are well adapted to live in very dry environment?

A, Epiphytes B, Xerophytes C, Mesophytes D, Hydrophytes

118, Which of the following is more likely to ensure the conservation of all the rest?

A, Soil conservation B, Wild life conservation

C, Plant conservation D, Watershed conservation

119, The mature fruit of flowering plant burst open when touched, forcefully ejecting the seeds contained in the pods. Why is this advantageous to the plant?

A, It attracts insects that aid in pollination B, It aids in n dispersal of the species

C, It prevents seed germination D, It can cause genetic change to occur

120, In which of the following biomes are epiphytes typically present as characteristic element?

A, Tundra B, Boreal forest C, Cold desert D, Tropical rain forest

121, What is the best term that refers to the maximum number of individuals that a given environment can support over a long period of time without degradation?

A, Density B, climax community C, Carrying capacity D, Limiting factors

122, How is it possible for different species to coexist in an ecosystem?

A, Each species has specific biome of its own

B, Each species occupies a different niche within the ecosystem

C, There is no competition for resource among species in an ecosystem

D, All resources are equally shared among species in an ecosystem

123, Which of the following land biomes occupy a large part of Brazil, parts of equatorial west Africa and south east Asia?

A, Acacia forest B, Deciduous temperate forest

C, Coniferous forest D, tropical rain forest

124, In Ethiopia, which of the following groups of vertebrates is the most diverse in terms of species number?

A, Mammals B, Birds C, reptiles D, Amphibians

125, Which of the following is a threat to the survival of small population?

A, Habitat destruction B, Breeding in captivity

C, Disease resistance D, Absence of competition

126, In what ways are mode of nutrition of animals and saprophytes similar?

A, No enzymes are produced B, Digestions external to their cells

C, they build up protein from light D, They autotrophic organisms

127, Which one is a biotic factor that can influence the plant?

A, The PH of soil B, A pollinating animal

C, CO_2 concentration D, The amount of radiant energy

128, Which of the following is not recycled between organism, and their environment in an ecosystem?

A, Energy B, Carbon C, Nitrogen D, Phosphorus

129, What is the term that refers to all parts of earth where living things are found?

A, Population B, Ecosystem C, Biosphere D, Environment

130, In which kingdom of life are the unicellular eukaryote grouped?

A, Monera B, Protista C, Plantae D, Animalia

131, Select the function that living things are not capable of performing?

A, Maintain their internal body environment

B, Pass genetic information to their offspring

C, Responds to other organisms found in their surrounding

D, Determine the amount of radiation reaching the environment

132, Which one of the following is the main source of the greenhouse gas that are concentrating in the atmosphere of the earth?

A, Burning of fossil fuels B, Plants growing in greenhouses

C, Photosynthesis by aquatic plants D, Respiration by animals and plants

133, Which one of the following is not one of the roles that microorganisms play in an ecosystem?

A, Nutrient recycling B, carbon fixation C, Nitrogen fixation D, energy recycling

134, Which one of the following demographic factors affects the number of human population globally?

A, Natality B, Migration C, emigration D, immigration

135, When do populations of living organisms show exponential growth?

A, when the resource is plentiful

B, whenever they enter the new environment

C, when they face strong competitions

D, when the carrying capacity of the environment is reached

136, Which of the following terrestrial biome experience hot days and cold days?

A, tundra B, tropical rain forest C, Desert D, Grass land

137, Which group of organisms found in Ethiopia is represented by the highest number of endemic taxa?

A, Mammals B, Amphibians C, Birds D, Plants

138, Which alternatives contain only crops known to have been domesticated with in Ethiopia?

A, Guizotia abssinica, Zea mays, pisum sativum

B, Vicia faba, Carica papaya, Musa paradisiacal

C, Oriza sativa, triticum aestivum, solanum tuberosum

D, Coffe Arabica, Eragrostis tef, Ensete ventricosulum

139, Which of the following statement is true about nitrogen cycle?

A, Plants fix nitrates from atmospheric nitrogen

B, The nitrogen used by animals largely comes from plants

C, Nitrogen is consumed by bacteria and removed from the soil

D, Nitrogen fixing bacteria reduce the total amount of available nitrogen

140, What would be the main reason behind the currently observed slow or stable rate of population growth in the industrial countries?

A, God family planning B, Increasing death rate C, poor health condition D, high rate of child death

141, What is the average projected rate of loss of biodiversity every 50 years?

A, 5% B, 10% C, 20% D, 50%

142, What is the biome of the world where succulent plants are commonly found?

A, Deciduous forest B, Thorn forest C, Hot desert D, temperate grass land

143, The following statements are correct regarding ecological succession except

A, Species diversity increase as succession proceeds

B, The food chain relationship becomes more complex

C, Ecological succession is random process

D, The role of decomposers become more and more important

144, Which of the following steps in life cycle of HIV is blocked if antiretroviral drug that inhibits the reverse transcription enzyme is given to an AIDS patient?

A, Formation of DNA from RNA B, The entry of HIV in to CD4 cells

C, The assembly of parts into HIV particle D, The integration of HIV DNA into host chromosome

145, Which stage in primary ecological succession contains more biodiversity?

A, The third serial stage B, The second serial stage

C, The climax community D, The pioneer community

146, In tropical rainforest largely found in South America and Africa can be best characterized by combination of which environmental factors?

A, Low rainfall and low temperature B, high rain fall and high temperature

C, Low rain fall and high temperature D, High rain fall and low temperature

147, Which of the following terms mean stage in an ecological succession?

A, Pioneer B, climaxes C, Seres D, Niches

148, Which component of the soil fertility is improved when farmers grow legumes in crop rotation?

A, Nitrogen B, sulfur C, Carbon D, Magnesium

149, One of the following biomes of Africa is supporting large wild mammals such as elephants, giraffe and lion?

A, The Congo rain forest B, The rain forest of western Ethiopia

C, The savanna grassland D, The Sahara desert

150, What is the important role played by microorganisms such as bacteria and fungi in an ecosystem?

A, Antibiotic production B, Recycling of nutrients

C, forming organic substance D, Supplying energy to the ecosystem

151, In which one of the following aspects is he tropical rain forest biome poor/

A, Species diversity B, amount of sun light C, Amount of precipitation D, Soil fertility

152, Which of their following is not usually true as an ecological succession of progresses advanced seral stages?

A, ore ecological niches are formed B, Species become more divers

C, the depth of the soil increase D, less population are supported

153, In which of the four phase of population growth is the number of the population the highest?

A, Lag phase b, log phase C, Constant phase D, Decline phase

154, What is the type of community called when it has reached the final and most complex stages of a succession?

A, Pioneer community B, Seral community C, Climax community D, Secondary community

155, Which of the following is an ecosystem/

A, Tropical rain forest B, the African continent

C, All the organisms in the given area D, the non-living component of the environment

156, What is the main reason for high species richness of plants and animals observed in Ethiopia?

A, Lack of predators B, Lack of disturbance

C, Presence of several biome within the country D, Efficient management of ecological resource

157, Under which of the following groups can fungi be more conveniently placed?

A, Autotrophs B, Heterotrophs C, Prokaryotes D, Plants

158, In which of the following are flowers and fruits found?

A, Ferns and relatives B, gymnosperms and ferns C, Mosses and conifers D, Monocots and dicots

159, Which one of the following concept contains all the others?

A, Species B, Gen=us C, population D, Community

160, Which of the following statement is true about matter and energy in the ecosystem?

A, both matter and energy are recycled B, Matter is not recycled, energy is recycled

C, Matter is recycled, energy is not nor recycled D, Energy is recycled more than matter does

161, Which of the following parts of plant root is harboring nitrogen fixing bacteria?

A, Root nodule B, root hair C, Root tip D, root cap

162, Which forms of nitrogen is readily utilized by green plants?

A, Atmospheric nitrogen B, Nitrite C, Ammonium ion D, Nitrate

163, Which one of the following ways the tundra biomes differ from desert biome?

A, It is a tree less biome B, It has little biodiversity

C, It receives little precipitation D, It has permanently frozen sub soil

164, In Ethiopia, which one of the following vertebrate groups has the largest member of genera?

A, Mammals B, Birds C, reptiles D, Amphibians

165, Which of the following resource is used by an ecosystem from outside in order to sustain itself?

Producers B, macronutrients C, Micronutrients D, sunlight

166, Which of the following applies to the tropical rain forest?

A, Low rain fall and high temperature B, low rain fall and low temperature

C, high rain fall and high temperature D, High rain fall and low temperature

167, What is perfect flower?

A, a flower with petals and pistil B, A flower with stamens and sepals

C, A flower with stamens and pistil D, A flower with sepals and petals

168, Which term describes the process by which water is lost by evaporation through the stomata of the leaves?

A, Transport B, transpiration C, Anchorage D, Adhesion

169, In which kingdom of life is it most likely to find many examples of organisms that can undergo metamorphosis?

A, Monera B, fungi C, Plantae D, Animalia

170, Suppose sites A, B, C, and D have simpson's index of diversity (d) value of 20, 8, 16 and 3 respectively, which site is dominated by one or just a few species/

A, site A B, Site B C, site C D, site D

171, Which of the following can create strong interspecific competition if shared by two or more species?

A, habitat B, ecosystem C, Niche D, Predators

172, Among the following, which one has little or no contribution to the loss of biodiversity?

A, Over grazing by domestic animals B, Clearing forest to grow crops

C, Growing crops of improved varieties D, Growing cops of landraces

173, Which of the following is the largest ecological unit?

A, A Community B, A biome C, A population D, An ecosystem

174, What is the ecological successions in which plant communities establish after an area has been completely demolished by fire?

A, Tree succession B, Secondary succession C, Primary succession D, Bare rock succession

175, From which organism is the first antibiotic used in medicine produced?

A, Gram negative bacteria B, Members of the fungi

C, Genetically modified protozoa D, Higher plants

176, Which of the following organisms in the ecosystems release nutrients locked up in dead bodies of organisms?

A, Parasites B, decomposers Autotrophs D, Carnivores

177, Which one of the following crops has its center of origin and diversity in Ethiopia has become a leading international commodity of commerce?

A, Teff B, Enset C, Coffee D, Anchote

178, Which groups of animals the highest numbers of total and endemic species in Ethiopia?

A, Amphibians B, Birds C, Mammals D, Reptiles

179, Which of the following is not the correct characteristic of tropical rain forest?

A, low biodiversity B, High temperature C, Heavy precipitation D, Trees of different height

180, What are the long term primary effects of the current tree planting activities that Ethiopia is undertaking?

A, It will protect from harm full solar rays B, It will increase the global temperature

C, It will reduce the atmospheric CO2 D, It will mend the holes in the ozone layer

181, What do you call group of genetically identical plants produced by vegetative reproduction?

A, Family B, Clone C, Hybrid D, genus

182, From where do plants get most of their nutrients?

A, Chlorophyll B, Soil C, Light D, Atmosphere

183, Which one of the following shows the feeding methods of the decomposer?

A, Saprobiotic nutrition B, Autotrophic nutrition C, Parasitic nutrition D, intracellular digestion

184, Which of the following factor is abiotic factor operating within an ecosystem?

A, The amount of helium gas in the air

B, The rate of flow of water in the river

C, The carnivores that consumes other animals

D, The type of climate in the given region

185, Which of the following is a not true characteristic of the population of most of the developing countries of the world?

A, High fertility rate B, Increase population size

C, More number of old people than young people D, Birth rate greater than mortality rate

186, The following are simpsoms index of species diversity calculated for four areas containing the same type of species. Which index value is from the area dominated relatively by a fewer number of species?

A, 8.00 B, 6.00 C, 3.5 D, 2.5

187, What is the reason that plants do not use nitrogen directly from the atmosphere?

A, nitrogen concentration is low in the atmosphere

B, The molecular size of the nitrogen is too large to pass through the stomata

C, Nitrogen can enter plants through the root hairs

D, Plants lack the necessary process to use elementary nitrogen

188, Which of the following biome of the earth has the greatest biodiversity of species?

A, Deciduous forest B, Tropical rain forest C, desert D, tundra

189, Of the following, which one is the main source from which plants get the nutrients necessary for their growth and development?

A, Light B, Chlorophyll C, Atmosphere D, Soil

190, If two species are known to belong to the same order, they must also belong to which taxonomic category?

A, Class B, family C, Species D, genus

191, Which of the following organisms usually forms the pioneer community in a primary biological succession?

A, Annual herbs B, Lichens C, Trees D, Ferns

192, In the carbon cycle, which of the following processes removes CO2 from the atmosphere?

A, respiration B, decomposition C, Photosynthesis D, combustion

193, Which of the following is not universal property of all living things?

A, Heritable characters B, reproduction C, Photosynthesis D, Growth and development

194, What are the possible consequences of deforestation of the tropical rain forest?

A, An increase in existing ecological niches

B, Reduction in species diversity of an area

C, Increased removal of CO2 from the atmosphere

D, An increase in the amount of nitrogen in the soil

195, Which of the following release CO2 into the atmosphere?

A, respiration B, Assimilation C, Feeding D, photosynthesis

196, If an area is just dominated by one species having very many individuals, what would be its index of diversity?

A, Fluctuating B, High C, Low D, unpredictable

197, Among the vertebrates found in Ethiopia, which class has the highest percentage of endemic species?

A, Amphibians B, Reptiles C, Birds D, Mammals

198, Which of the following terms refers to movement of individuals out of population?

A, Mortality B, Immigration C, Emigration D, Natality

199, In Ethiopia animal diversity, which group is represented by the highest number of orders, families, genera and species?

A, Birds B, Amphibians C, Fish Mammals

200, Witch of the following process involved in water cycle is carried out by green plants?

A, Evaporation b, Precipitation c, condensation D, Transpiration

201, To which biomes are epiphytes typically present as a characteristics element?

A, Tropical Montana forest B, Cold desert wood land

C, The tundra environment D, Boreal deciduous forest

202, If a country have large number of young people relative to the number of old people, to which categories of countries dos it belong?

A, Industrial B, Hunter gatherer C, C, postindustrial D, Developing

203, Which of the following is an important way by which green plants mitigate the greenhouse effect?

A, Use of fire wood to replace coal

B, Removing CO_2 from the atmosphere

C, Releasing water to the atmosphere

D, Releasing oxygen to the atmosphere

204, What do we call place where e organisms live in their ecosystem?

A, Abiotic B, Biotic C, Habitat D, Niche

205, Which of the following is not recycled in an ecosystem?

A, Sulfur B, Energy C, carbon D, Phosphorus

206, Which of the following type of ecological succession that starts from a cleaned forest area?

A, Hydrosere B, Primary C, Secondary D, Pioneer

207, Which of the major role played by bacteria and fungi in the ecosystem?

A, Causing disease B, recycling nutrients C, Fixing carbon dioxide D, Producing antibodies

208, Among the following which one is held most responsible for the present fast depletion of the world biodiversity?

A, Herbivores B, Carnivores C, Grazers D, Humans

209, Which of the following demographic factors can increase the size of the world population?

A, Natality B, Migration C, emigration D, Immigration

210, Which of the following processes is most important to release nutrients from dead organic matter into the soil?

A, Fixation B, Decomposition C, Excretion D, Respiration

211, Which of the following biomes support highest diversity of plants and animals life?

A, Tropical rain forest B, Deciduous forest C, Grass land D, African savannah

212, Biome where trees predominant are called?

A, Polar biomes B, desert biomes C, Forest biomes D, grass land biomes

213, The goal of biodiversity conservation include all of the following except

A, Protecting individual species

B, introducing exotic species into new environment

C, Preserving habitat and ecosystem

D, making sure local people benefit from conservation efforts

214, The maximum population growth rate characteristics of the species is called

A, Limiting factor B, Biotic potential C, Carrying capacity D, Exponential growth rate pattern

215, The total amount of living tissue within a given trophic level is called?

A, Organic mass B, Energy mass C, Trophic mas D, Biomass

216, What mode of feeding does soil organisms that release nutrients from dead organic matter into the soil have?

A, Photoautotrophic B, Saprophytic C, Chemoautotrophic D, Parasitic

217, Which group of bacteria reduces nitrates to nitrogen gas in the nitrogen cycle?

A, Nitrogen fixing bacteria B, Ammonium ion forming bacteria

C, denitrifying bacteria D, photosynthetic bacteria

218, When farmers using fewer and fewer number of crop varieties, what would happen to the genetic diversity of our crop plants?

A, It would get erode B, It would be more conserved

C, It would be more diverse D, Nothing would happen to it

219, In which parts of Ethiopia are lions, elephants, and giraffes found more commonly?

A, In the afro alpine and sub afro alpine zones

B, In the high land area of northern Ethiopia

C, In the grassland of southwestern Ethiopia

D, The central and northern part of rift valley

220, The main factors that determines the type of terrestrial biomes in certain geographical area are

A, Soil and vegetation formation B, Soil and biological diversity

C, Complexity in ecological succession D, Precipitation and temperature

221, Which of the following is the most unlikely action that would be expected from Ethiopians who have been given adequate biological literacy?

A, Engagement in activities resulting in biodiversity loss

B, supporting activities with food security

C, Awareness about climate change and its problem

D, Engagement in biological resource conservation

222, Why do microorganisms decompose dead organic matter?

A, To release mineral nutrients for plants

B, To clear up the ecosystem

C, To drive energy for their own use

D, To keep the balance of atmospheric gases

223, The practice of modern agriculture that reduces crop biodiversity is

A, Overgrazing ?B, Forest clearing

C, Growing land races D, Growing few high yielding varieties

224, What kind of nutrition do most of the decomposers have in general?

A, Autotrophic nutrition B, endosymbiont nutrition

?C, Saprobiotic nutrition D, Chemosynthetic nutrition

225, The amount of organic matter present at a given time per unit area is called?

A, Carbon sequestration B, Standing crop C, Carbon foot print D, Productivity

226, In the energy pyramid, which groups of organisms has the least amount of energy?

A, Primary producers B, tertiary producers C, Herbivores D, Animals

227, What is the nutritional mode of those bacteria which decompose dead organic matter and thus recycle nutrients?

A, Autotrophic B, Parasitic C, saprobiotic Symbiotic

228, Which of the following is not true about flow of energy in the ecosystem?

A, It is recycled by decomposers

B, It passes from one trophic level to the next

C, It enters the ecosystem in the form of light

D, it leaves the ecosystem in the form of heat

229, Through which of the following do all living organisms contribute to carbon cycle?

A, Photosynthesis B, cellular respiration C, Decomposition D, combustion

230, In ecological context, which of the following is population?

A, All living organisms in a habitat

B, All the producers in a habitat

C, All the consumers in a habitat

D, All individuals of same species in a habitat

231, What is the other name for the primary consumers of the ecosystem?

A, Herbivores B, Carnivores C, Green plants D, Predators

232, Of the following activities, which one is considered to have an indirect negative effect on biodiversity?

A, Human and livestock population growth

B, Charcoal making and illegal logging

C, Deforestation for cultivation and urbanization

D, Monoculture farming with improved crop varieties

233, Current human concern such as famine, pestilence and environmental degradation would be solved through the use of

A, Biological principle B, Irrigation

C, Aquaculture D, Terracing

234, Recycling of nutrients through ecosystem

A, Food processing B, Genetic engineering

C, Recycling of mineral through ecosystem D, Waste water treatment

235, Carbon cycle is important in nature because

A, The amount of energy before and after reaction must be the same

B, It continuously reuse and recycles carbon in the ecosystem

C, it consumes oxygen and nitrogen in the atmosphere

D, it is used in the energy capture and recapture

236, Which of the following is not in situ conservation of biodiversity?

A, Botanical garden B, Sanctuary C, Biosphere reserves D, National parks

237, Which one of the following represents the population growth curve of a species with limited resource?

A, Logistic B, Exponential C, Lognormal D, Competitive exclusion

238, What major consequences does primary ecological succession involve normally?

A, Complexity of food web increase

B, Number of species present decrease

C, Abiotic factors become less favorable

D, Habitats become harsher and deteriorate

239, How quickly a population would increase or decrease in size is probable least influence by the presence of

A, Adequate supply of oxygen B, Disproportionate human races

C, Severe interspecific competition D, Carnivores and herbivores

240, What does a low values for simpson’s index of diversity normally indicate to researchers?

A, An area with high number of endemic species

B, An area dominated by one or just a few species

C, A biodiversity hotspot with abundant species

D, An area with plants but no species of animals

241, A country with high youth population but low old age population and low infant population shows?

A, A population pyramid with bulge in the middle

B, A population with wide base and narrow apex

C, An inverted pyramid

D, A pyramid assuming a rectangular shape

242, Which of the following terms specifically refers to an ecological succession that starts in aquatic environment?

A, Xerosere B, Hydrosere C, Primary succession D, Secondary succession

243, Suppose age pyramid of a population has broad base with narrow top, which of the following is not true about the population?

A, It is fast growing B, It has high life expectancy

C, It is dominated by young people D, it has high birth rate

244, What is another name for secondary consumer?

A, Producers B, Carnivore C, herbivore D, Decomposer

245, Which of the following best describes the role of bacteria in nitrogen cycle? Bacteria turns

A, Oxygen into nitrogen for plant to use

B, Nitrogen into usable form in the process called transpiration

C, Nitrogen into usable form for the plant use called ammonia

D, CO_2 in o oxygen during the process of photosynthesis

246, Both photosynthesis and respiration are involved in

A, Carbon cycle B, nitrogen cycle

B, Water cycle D, Phosphorus cycle

247, Which one of the following terms best describes the number of different spices in the biosphere or in the particular area?

A, Biodiversity B, Species diversity C, Ecosystem diversity D, genetic diversity

248, Which bacterial genus fixes nitrogen in the nodules of leguminous plant?

A, Agrobacterium B, Rhizobium C, Escherichia D, Azxobacter

249, Which of the following pairs of process add CO_2 to the atmosphere?

A,. Decomposition and combustion B, Respiration and photosynthesis

C, Photosynthesis and podsolization D, Combustion and respiration

250, Which of the following agricultural practices does not have a negative effect on biodiversity?

A, Use of pesticide B, Use of insecticide

C, growing landraces D, Growing improved varieties

251, What is the general name of crop plants that add nitrogen to the soil because of their symbiotic association with certain types of bacteria?

A, Legumes B, Nodules C, Cereals D, Herbs?

252, The most abundant inorganic molecule in the atmosphere that traps heat is

A, H_2S B, O_2 C, CO_2 D, H_2O

253, The active sludge method of sewage treatment is based on the principle of

A, Denitrification

B, Removal of polluting organic matter through filtration

C, Decomposition and removal of organic matter

D, Anaerobic respiration

254, Under ideal condition and unlimited resource, continuous population growth pattern is known as

A, Density dependent growth B, Logistic growth

C, Population distribution growth D, exponential growth

255, Ethiopia is a regional center of biological diversity which of the following diversity is expressed?

A, The many mountain, valley, river, and scenic beauty

B, Wide range of altitude and climate

C, High number of endemic wild and domestic plant species

D, The number of different biomes in the country

256, If you were to travel from the Arctic Circle to the equator, what sequence of biomes would you most likely pass through?

A, Tundra, taiga, temperate forest, tropical rain forest

B, Taiga, tundra, temperate forest, tropical rain forest

C, Tropical rain forest, temperate forest, taiga, tundra

D, Tundra, temperate forest, taiga, tropical rain forest

257, Occurrence of endemic species in Ethiopia is due to

A, The fact that those species have been extinct from the other region

B, The fact that there is no terrestrial route to this place

C, Continental separation

D, Retrogressive evolution

258, What is the population growth phase of the current world population?

A, Static phase B, Lag phase C, Decline phase D, Exponential phase

259, As an ecological succession passes from lower to higher seral stage, which of the following will not happen?

A, Soil nutrient is depleted B, Ecological niches increase

C, Species get more diverse D, The community gets more complex

Answer

No	**A**	**No**	**A**	**No**	**A**	**No**	**A**	**No.**	**A**	**No**	**A**	**No**	**A**	**No**	**A**	**No**	**A**
1	A	26	C	51	C	76	C	101	D	126	B	151	D	176	B	201	A
2	B	27	C	52	D	77	C	102	B	127	B	152	D	177	C	202	D
3	B	28	C	53	B	78	A	103	B	128	A	153	C	178	B	203	B

4	D	29	C	54	A	79	D	104	A	129	C	154	C	179	A	204	C
5	B	30	C	55	D	80	C	105	B	130	B	155	A	180	C	205	B
6	D	31	D	56	B	81	D	106	C	131	D	156	C	181	D	206	C
7	D	32	D	57	A	82	D	107	D	132	A	157	B	182	B	207	B
8	B	33	D	58	D	83	B	108	C	133	D	158	D	183	A	208	D
9	C	34	C	59	D	84	D	109	D	134	A	159	D	184	C	209	A
10	A	35	C	60	A	85	A	110	B	135	A	160	C	185	C	210	B
11	D	36	B	61	A	86	A	111	D	136	C	161	A	186	D	211	A
12	D	37	B	62	A	87	D	112	D	137	B	162	D	187	D	212	C
13	D	38	A	63	D	88	D	113	B	138	B	163	D	188	B	213	B
14	B	39	A	64	D	89	B	114	D	139	B	164	B	189	D	214	B
15	C	40	D	65	A	90	B	115	A	140	A	165	D	190	A	215	D
16	B	41	D	66	D	91	A	116	B	141	B	166	C	191	B	216	B
17	A	42	D	67	D	92	A	117	B	142	C	167	C	192	C	217	C
18	A	43	D	68	D	93	C	118	D	143	C	168	B	193	C	218	B
19	B	44	C	69	B	94	A	119	B	144	A	169	D	194	B	219	C
20	C	45	D	70	A	95	B	120	D	145	C	170	D	195	A	220	D
21	C	46	C	71	C	96	A	121	C	146	B	171	C	196	C	221	A
22	C	47	D	72	C	97	D	122	B	147	C	172	C	197	C	222	C
23	B	48	D	73	D	98	C	123	D	148	A	173	B	198	C	223	B
24	B	49	A	74	D	99	C	124	D	149	C	174	B	199	B	224	C
25	B	50	C	75	D	100	C	125	A	150	B	175	B	200	D	225	D

226	B	234	C	242	B	25	C

						0	
227	C	235	B	243	A	251	A
228	A	236	A	244	B	252	C
229	B	237	A	245	C	253	B
230	D	238	A	246	A	254	D
231	A	239	A	247	A	255	C
232	D	240	B	248	B	256	A
233	A	241	B	249	D	257	D

258,D 259,A