

IITJEE Foundation Practice paper

OUR ENVIRONMENT

class-10th-Science Number of Questions: 74

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1

From the following, which is the example of non-biodegradable waste.

- paper cotton grass plastics

2

Which biodegradable waste can be passed along the food chain from crops to man or other animals and birds and harm them.

- plastics DDT synthetic fibres silver foil

3

Animal bones,Leather,Hay,Cotton,wood are the examples of _____ wastes.

- industrial non-biodegradable biodegradable organic

4

An ecosystem includes _____

- biotic components abiotic components both biotic and abiotic components
 input of solar energy

5

An ecosystem needs only the input of _____ for its functioning.

- sunlight water air soil

6

From the following which is not the example of aquatic ecosystem.

- river sea cropfield aquarium

7

Gardens, crop-fields and parks are the examples of

- aquatic ecosystem natural ecosystem artificial ecosystem
 none of the above

8

Which of the following statements is incorrect

- desert,forest mountains are natural and terrestrial ecosystems
 an ecosystem need only the input of sunlight energy
 an ecosystem is of both biotic and abiotic components
 abiotic components are plants,animals

9

Accumulation of non-biodegradable pesticides in the food chain in increasing amount at each higher trophic level is known as

- food pollution soil pollution accumulation biomagnification

10

From the following which is not the biotic component of ecosystem.

- producers consumers decomposers none of the above

11

From the following which is the heterotroph.

- fungi blue-green algae goat bacteria

12

The science that deals with the inter-relationships of living things with one another and their environment is called _____

- ecology ecosystem histology embryology

13

The organisms which prepare their own food are called as _____

- consumers carnivores herbivores producers

14

Consumers are also called as _____

- zooplanktons phytoplanktons tertiary consumers autotrophs

15

From the following which is the micro consumer?

- bacteria protozoa blugreen algae none of the above

16

From the following which is the primary consumer?

- tiger frog snake elephant

17

The animals which eat only other animals are called _____

- carnivores omnivores herbivores producers

18

Match the following:-

- 1) autograph
- 2) tertiary consumers
- 3) biotic component
- 4) omnivores

- (a)soil
- (b)man
- (c)tiger
- (d)plants

- 1)b, 2)a, 3)c, 4)d 1)d, 2)c, 3)a, 4)b 1)c, 2)b, 3)d, 4)a 1)a, 2)d, 3)b, 4)c

19

Organism which synthesis carbohydrates from inorganic compounds by using radiant energy are

- producers consumers decomposers none of the above

20

Very minute or microscopic organisms freely floating on the surface of water in a pond, lake, river or ocean are called as

- planktons decomposers two of the above none of the above

21

The decomposers in an ecosystem

- convert inorganic material into simpler forms
 convert inorganic material into complex organic compounds
 convert complex organic compounds into simpler substances
 do not break down organic compounds

22

Which of the following help recycling of materials in the ecosystem.

- bacteria fungi two of the above none of the above

23

Which of the following statements is wrong regarding decomposers.

- decomposers act as cleaning agents
 bacteria which act as decomposers are putrefying bacteria
 they break down simple inorganic substances
 they break down dead remains and waste products

24

The food chain starts with which type of organisms.

- consumers decomposers producers saprophytes

25

Which of the following constitutes a food chain?

- grass ----> insect ---->frog ---->bird grass ---->frog ---->insect ----.bird
 grass ---->insect ---->bird ---->frog grass ----.>frog ---->Bird ---->insect

26

Top carnivore in the food chain plants ---> worms ----> birds ---> cats
which trophic level.

- third fourth first none

27

If an insect is eaten by frog, then the energy transfer will be from

- primary consumer to secondary consumer producer to decomposer
 producer to primary consumer secondary consumer to top consumer

28

In a food chain the second trophic level is always occupied by

- carnivore producers herbivore decomposers

29

In the food chain comprising of Hawk, Plants, Grasshopper, Frog and Snake, the primary consumer is

- plants snake frog grasshopper

30

Which of the following is the incorrect representation of the possible food chain?

- grass---->deer---->lion plants---->rabbit---->hawk grass---->insect---->frog
 palnts---->frog---->grosshopper

31

The inter-connected food chains operating in an ecosystem which establish a network of relationships between various species is called

- ecological pyramid food web two of the above none of the above

32

Match the following:-

- 1)Primary consumer
- 2)Producers

3)Lion

4)consumers

a)Tertiary consumer

b)heterotrophs

c)Herbivore

d)first trophic level

- 1)c, 2)d, 3)a, 4)b 1)d, 2)b, 3)a, 4)c 1)b, 2)a, 3)c, 4)d 1)a, 2)b, 3)d, 4)c

33

What would be the consequence, if all the Deer are eliminated

- there will be no change there will not be food sufficient for the carnivores
 there will be decrease in the deer population
 there will be no subsequent reduction in carnivores

34

Sahara Desert was formed over a period of time due to one of the following activities.

- excessive cutting of forest plants excessive killing of large carnivores
 excessive use of chemicals due to very short rainfall

35

One of the following is not a consumer, that is

- giraffe alligator hawk algae

36

Transfer of energy in a food chain take place in ____

- unidirectional both directons does not takes place to any direction
 none of the above

37

The sequence of living organisms in a community in which one organism consumes another organism to transfer food energy, is called as

- food transfer food chain ecosystem food transfer

38

The food chain in a community represents a step wise transfer of _____ and _____

- air ,water food , energy water , energy food , water

39

The food and energy enter the living components of the ecosystem through the process of _____

- fermentation photosynthesis transportation respiration

40

Photosynthesis is a process which combines the substances like carbon dioxide, water and _____

- chemical energy mechanical energy solar energy electrical energy

41

The green plants have a pigment called _____ for trapping solar energy.

- haemoglobin chloroform chlorophyll chloroplasts

42

The green plants converts solar energy into chemical energy which is stored as _____ in the plants.

- vitamins enzymes proteins carbohydrates

43

_____ % of solar energy is used by the plants in the process of photosynthesis.

- ten one twenty eight

44

Name the scientist who gave Ten percent law for energy transfers in food chains.

- Lamarck Lindeman Louis Pasteur Robert Brown

45

From the following organisms which of them release the unutilised energy into the environment as heat , which is called as community heat.

- producers consumers decomposers all of the above

46

How much percentage of solar energy is transferred by the plants to the next level.

- 1 10 100 1000

47

How much amount of energy available to lion in the following food chain if plants have 2000 J of energy available from the sun.

Plants---->goat----lion.

- 2J 0.2J 0.02J 0.002J

goat---->lion,

20J 2J 0.2J

48

Which radiations are absorbed by ozone layer.

- gamma rays x-rays infra red rays ultra violet rays

49

The depletion of ozone layer is due to the use of chemicals called

- chlorofluorides chlorocarbinies chlorofluorocarbons none of the above

50

Scientists have observed a hole in the ozone layer above the _____ continent.

- antarctica australia arctic north america

51

Chlorofluorocarbons are the chemicals used in

- refrigeraters air conditioners fire extinguishrs all of the above

52

The increase in concentration of harmful chemical substances like pesticides in the body of living organisms at each trophic level of a food chain is called

- biodegradation biomal nutrification biological magnification biodiversity

53

From the following statements which is incorrect regarding ozone.

- ozone is a gas which is poisonous ozone depletion causes damage to mankind
 depletion of ozone is due to CFCs. due to ozone depletion, lung diseases arise

54

From the following which is caused by ozone depletion.

- lung cancer throat cancer skin cancer liver cancer

55

Fill in the following food chain.

Grass----> _____ ----->Frog---->Bird

- lion cow insect goat

56

Pesticides enter the food chain at the _____ level.

- consumer herbivore producer decomposer

57

Which of the following will have the maximum concentration of harmful chemicals in its body.

- peacock grasshopper grass snake

Grasshopper-->Frog---->Snake----->Peacock, in the food chain peacock occurs at the highest trophic level.

58

Below some modes of waste disposal are given, out of those which one is incorrect

- recycling incineration landfill none of the above

59

Which mode of waste disposal greatly reduces the volume of the waste.

- landfill sewage treatment recycling incineration

60

Which of the following gets the minimum energy through the food chain in an ecosystem.

- producer herbivore carnivore large carnivore

61

The Ten percent energy available for transfer from one trophic level to the next is in the form of

- solar energy chemical energy mechanical energy electrical energy

62

The disposal of wastes by putting it in low-laying areas of ground and covering it with earth is called

- recycling sewage treatment land fill incineration

63

In which method of waste disposal the fruit and vegetable peels, leaves of potted plants and left-over food are burned in a pit dug into the ground.

- incineration recycling land fill preparation of compost

64

Which method of waste disposal reduces the volume of waste.

- incineration sewage treatment two of the above none of the above

65

From the following statements one statement is wrong regarding the sewage treatment mode of disposal of waste,

- it produces clean water after treating after treatment the plant produces bio gas
 in this method sewage is dumped into the river none of the above

66

The Ten percent law is associated with

- transfer of energy from various trophic levels to decomposers
 transfer of ATP energy into muscular energy
 transfer of chemical energy from one organism to another
 transfer of solar energy to the producers

67

Pyramid of energy in a pond ecosystem is always

- upright inverted both of the above none of the above

68

An ecological pyramid of biomass represents

- population in each food web tissue organisation at each level
 energy flow through each trophic level all of the above

69

When the number of organisms at successive trophic levels are plotted, they assume the shape of a pyramid. This is the pyramid of _____

- energy food numbers biomass

70

Deer in a ecosystem acts as a

- primary consumer secondary consumer tertiary consumer decomposer

71

In an ecosystem, bacteria are considered as a

- microconsumers macro consumers primary consumers
 secondary consumers

72

Concept of ecological pyramids was developed by

- Elton Einestein Darwin Robert Brown

73

In an ecosystem, which one of the following is natural controlling force,

- temperature food rainfall predators

74

The study of energy transfer in different trophic levels of an ecosystem is called

- bioenergetics biogeocoenosis biosystem none of the above

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