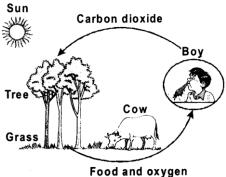
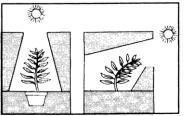
# Talent & Olympiad

# Living organisms and their surroundings

- 1. How does a chameleon protect itself from its enemies?
  - (a) By changing the colour of its body.
  - (b) By releasing bad small.
  - (c) It has a hard shell on its body.
  - (d) By curling its body.
- **2.** What does the figure given below represent?



- (a) Interdependence between plants.
- (b) Interdependence between plants and animals.
- (c) Interdependence between animals.
- (d) Interdependence between abiotic factors.
- **3.** Which statements are true about the tree in hilly areas?
  - (a) These trees are normally cone shaped.
  - (b) They have sloping branches.
  - (c) The leaves of some of these trees are needle-like.
  - (d) All of the above.
- **4.** The plant in the given figure responds to



(a) touch	(b) sunlight
(c) gravity	(d) water

- **5.** Which is the major component of the living environment?
  - (a) Water (b) Soil
  - (c) Trees (d) Ponds
- **6.** The following is a list of some plants and the habitat in which they live. Which option is mismatched? (a) Mangroves marshy areas.
  - (b) Coconut hot and damp places.
  - (c) Cactus wet areas.
  - (d) Mango plains.

- 7. Which term means 'Adjustment to environment?
  - (a) Adaptation (b) Mimicry
    - (c) Hibernation (d) Aestivation

### **8.** Which option is not an adaptation of animals living in polar regions?

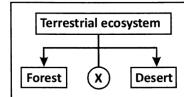
- (a) Wide and large paws.
- (b) Layer of fat under skin.
- (c) Thin skin with scales
- (d) Strong sense of smell
- **9.** Which of these 4ielp polar bears adapt to live in extreme cold climate? (a) White fur, fat below skin, keen sense of smell.
  - (b) Long tail, blunt claws, thin skin, paws.
  - (c) White body, paws for swimming, gills for respiration.
  - (d) Thin skin, large eyes, white fur.

#### **10.** Which characteristics protect an animal against cold weather?

(	(i) Thin skin.
(	(ii) Thick skin.
(	(iii) Thick layer of fat under the skin.

(a) (i) and (ii) only	(b) (ii) and (iii) only
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- (c) (i) and (iii) only (d) (i), (ii) and (iii)
- 11. Which adaptation helps the camel to survive in hot and dry desert?
  - (a) It has a layer of fat under its skin.
  - (b) It sleeps during the day and is active at night.
  - (c) It stores fat in its hump which can be broken down when it need energy.
  - (d) It stores water in its long neck.
- **12.** Which option is related to the function of scaly skin of snakes?
  - (a) To protect them from drying.
  - (b) To scare human beings.
  - (c) To make them beautiful.
  - (d) To help them to crawl.
- **13.** Environment consists of which of the following things?
  - (a) Only biotic environment.
  - (b) Only abiotic environment.
  - (c) Both biotic and abiotic environment.
  - (d) Only plants and animals.
- **14.** Which of the following is represented by "X" in the figure given below?



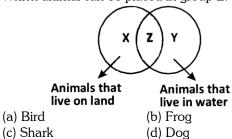
- (a) Ocean
- (b) Island
- (c) Grassland
- (d) Snow land

- **15.** Which characteristic of living things is also shown by a car?
  - (a) Response to changes.
  - (b) Need of energy.
  - (c) Reproduction of its kind.
  - (d) Taking in gases
- **16.** Which pair has not been correctly paired?
  - (a) Camel Desert
  - (b) Germs Air
  - (c) Polar bear Snow
  - (d) Whale-River
- **17.** Which of the following is an abiotic component of habitat?
  - (a) Tulsi (b) Snail
  - (c) Bacteria (d) Water
- **18.** In which habitat, animals with thick fur are most likely to be found?
  - (a) Grassland (b) Mountain
  - (c) Desert (d) Ocean
- **19.** Which organism depends on abiotic components for food?
  - (a) Insects(b) Birds(c) Plants(d) Fish
- 20. Which part of a camel will shrink in size when there is no food for a long time and retain its size when food is available?(a) Rough tongue.(b) Long guelashes.

(a) Rough tongue	(b) Long eyelashes
(c) Hump	(d) Neck

- The earth has so many different types of plants and animals. Which word best describes the above statement?
   (a) Division
   (b) Diversity
   (c) Similarity
   (d) Tropical
- **22.** Shreya touched a hot kettle and quickly pulled her hand away. Which characteristic is proved by the given statement? (a) Reproduction
  - (b) Response to stimuli
  - (c) Growth
  - (d) Respiration
- **23.** A chicken lays eggs and a cow gives birth to a calf. Which characteristic feature of living things is proved by the given statements?
  - (a) All living things reproduce.
  - (b) Some living things reproduce.
  - (c) All living things respond to stimuli.
  - (d) Some living things respond to stimuli.
- **24.** Which option does not belong to the group formed by others?
  - (a) Snail (b) Fish (c) Cup (d) Grass
- **25.** Which option is made from something that was once alive?
  - (a) Aluminum foil (b) Leather purse
  - (c) Plastic bag (d) Glass bottle

- 26. Which of these is the characteristic feature of only birds? (a) Feathers (b) Wings (c) Legs (d) None of these
- 27. Which one of the following birds can fly?
  - (b) Ostrich (a) Sparrow (c) Emu (d) Kiwi
- 28. In which habitat, can the animals move fast?
  - (b) Mountain (a) Grassland
  - (d) Forest (c) Desert
- 29. Which adaptation helps the cactus plant to minimise loss of water?
  - (a) Needle like leaves (b) Broad leaves
  - (c) Branched stem (d) Fibrous roots
- 30. Which animal can be placed in group Z?



- 31. In order to stay buoyant, some aquatic animals have a thick layer of fat. Where do you think seals store their fat? (a) Under their skin. (b) In their livers. (c) In their tails. (d) In their flippers.
- 32. A which feature of the tortoise helps it to have few predators?
  - (a) Big feet
  - (b) Little eyes
  - (c) Thick shell
  - (d) Large mouth
- 33. Plants tend to loose a lot of water in hot weather. Which of the following helps plants to save water? (a) Shedding leaves
  - (b) Having more leaves
  - (c) Having broad leaves
  - (d) All of these
- 34. Which of the following is NOT an adaptation for the polar bear to live in the arctic region?
  - (a) It has a thick coat of fur.
  - (b) It has a layer of insulating fat under its skin.
  - (c) It has two thick layers of fur.
  - (d) It has short and blunt claws.
- 35. Which of these plants is usually weak stemmed with numerous air spaces and very thin long and waxy coated leaves? (a) Mesophytes
  - (b) Xerophytes
  - (c) Bryophytes
  - (d) Hydrophytes

- 36. Which adaptations enable the frogs to live both on land and in water?
  - (a) They have gills that help them to breathe in the water.
  - (b) Their skin, when kept moist, can take in oxygen dissolved in water.
  - (c) They have lungs that help them to breathe when they are on land.
  - (d) Both (B) and (C)
- 37. Which of the following options comprises various stages in the life of an organism in proper sequence? (a) Birth, reproduction, growth, death.
  - (b) Growth, reproduction, birth, death.
  - (c) Birth, reproduction, death, growth.
  - (d) Birth, growth, reproduction, death.
- 38. Why does a plant bend towards sunlight?
  - (a) To prepare food
  - (b) To respire

  - (c) To absorb food
  - (d) To absorb water
- 39. A which of the following is paired correctly?
  - (a) Desert Dolphin (b) Aquatic-Giraffe
  - (c) Terrestrial whale (d) Terrestrial – deer
- **40**. An organism 'X' has hair on it's body. It gives birth to young one that feed on their mother's milk. Which organism is 'X'?
  - (a) Rabbit (b) Tortoise
  - (c) Lizard (d) Crocodile

# **Answers and Solution**

- (a) Animals have their own special characteristics to protect themselves from enemies and from danger. Chameleon
  protect itself from enemies by changing the colour of the body.
- **2.** (b) The figure represents the interdependence between plants and animals. Animals depend on plants for food and oxygen. Plants depend on animals for carbon dioxide.
- 3. (d) Trees found on the mountain are normally cone shaped and have sloping branches. The leaves of some of these trees are needle-like. This helps the rainwater and snow to slide off easily.
- **4.** (b) Basic needs required for a plant to grow are air, water and sunlight. It prepares its food in the presence of sunlight. Its shoot system or stem respond to light and bends towards the direction of sunlight.
- **5.** (c) Trees are the major components of the living environment.
- **6.** (c) Cactus plants grow in deserts.
- **7.** (a) Adjusting to environment is called an adaptation.
- **8.** (c) Thin skin and scales are the features not suited for tropical regions.
- **9.** (a) The white fur helps the polar bear to conserve heat and white surfaces are poor radiators of heat. Fat stored under its skin provides insulation against heat loss thus helping the animal to survive in the extreme cold conditions in the arctic region.
- (b)To protect themselves from extreme cold, some animals like penguins have thick skin and a thick layer of fat under their skin.
- **11.** (c) Camel is called the' ship of the desert'. It is used for transportation. It stores reserve food in the form of fat in its hump for future use.
- **12.** (d) The scales enable it by wriggling its body to gain a grip on moist surfaces.
- **13.** (c) The environment consists of both living organsisms(plants and animals) and non living substances (abiotic components).

- **14.** (c) Terrestrial ecosystem includes those organisms which live on land. It is classified into three types Forest ecosystem. Grassland ecosystem and Desert ecosystem.
- **15.** (b) A car moves by the combustion of fuel and thereby it gets energy.
- **16.** (d) Whale is an aquatic animal that lives and breeds in oceans.
- **17.** (d) All non-living things such as soil, water, sunlight, temperature etc. are abiotic component of an habitat. Tulsi, snail and bacteria are living components of an habitat.
- **18.** (b) Mountains usually have trees, that cools the environment. Hence, the animals with thick fur are most likely to be found in mountains, fur insulate the body and keeps the body warm.
- **19.** (c) Plants depend on abiotic components for food. They use carbon dioxide, water and sunlight for preparing food by photo-synthesis.
- 20. (c) The hump of a camel stores food, which provides it energy during food shortage.Hence, when there is no food for a long time, the hump will shrink in size and will retain its size when food is available.
- **21.** (b) Diversity refers to the variety of organisms (plants, animals and micro organisms) existing on the earth.
- **22.** (b) Living things respond to changes around them. Therefore, Shreya pulled her hand away when she touched a hot kettle in response to touch.
- **23.** (a) All living things reproduce to maintain their number. Human beings give birth to babies. Animals either lay eggs or give birth to young ones. Plants grow from seed.
- 24. (c) We can group things that have similar characteristics together. Snail, fish and grass are living things as they can grow, breathe, reproduce, move or die.Whereas cup is a non-living, man-made thing that cannot grow, breathe, reproduce, move or die.
- **25.** (b) A leather purse is made from skin of animals. Hence, it is a man-made things, which was once alive.
- 26. (a) All birds have feathers on their bodies.Fathers keep birds warm and help them to fly.

**27.** (a) Sparrow is a bird that can fly.

- **28.** (a) In grasslands, because of the open lands, animals can move freely. Most grassland animals are able to run very fast, which allows them to escape hunting animals.
- 29. (a) The leaves of desert plants are modified to spines, which reduce the loss of water by transpiration.
- **30.** (b) Z represents an animal that can live both on land and in water. Hence frog, which is an amphibian can be placed in Z. The bird and dog live on land while shark lives in water.
- **31.** (a) Seals store a thick layer of fat under their skin.
- **32.** (c) The given figure represents turtle. It's thick shell protects it from the predators.
- **33.** (a) Usually, plants shed leaves or store water in their leaves to reduce transpiration. In some plants, leaves are covered with a layer of wax to prevent evaporation of water from their surfaces.
- **34.** (d) Polar bear has wide large paws and long curved and sharp claws which help it to walk on ice.
- **35.** (d) Hydrophytes inhabit water bodies like ponds, lakes and rivers.
- **36.** (c) Moist and soft skin helps the frog to take in dissolved oxygen from the water and lungs to breathe when they are on land.
- **37.** (d) Living things take birth, grow old and die. Before death they reproduce to give birth to young ones. This is true for all the organisms. This cycle of life goes on and on. This is called life cycle.
- **38.** (a) The shoot of the plant bends towards sunlight to synthesise its food.
- **39.** (d) The organisms that live and propagate on land are called as terrestrial organisms. Man, tiger, deer, and trees are terrestrial organisms.
- 40. (a) The organism X is a rabbit. Rabbit is a mammal that have hair on their bodies.They give birth to young ones that feed on their mother's milk.