

THE ASIAN SCHOOL, DEHRADUN
MULTIPLE CHOICE QUESTIONS 2019

BIOLOGY

CLASS – XII

CHAPTER- 1

Life Processes

Question 1.

Yeast respire anaerobically using sugar as a substrate. Out of the options given below, choose the correct combination of condition and product?

	Condition	Product
(a)	Aerobic	Alcohol
(b)	Aerobic	Lactic acid
(c)	Anaerobic	Alcohol
(d)	Anaerobic	Lactic acid

Question 2.

The table shows the percentage composition of four samples of air. Which sample could have been breathed out by a person after vigorous exercise?

Samples	Oxygen	Carbondioxide	Water Vapour
(a)	16	0.3	Saturated
(b)	16	4	Saturated
(c)	21	0.03	Trace
(d)	21	3	Trace

Question 3.

Cramps caused during sudden activities are due to the formation of

- (a) lactic acid
- (b) acetic acid
- (c) excess of water
- (d) ethanol

Question 4.

Which of the following plays nose like function in plants?

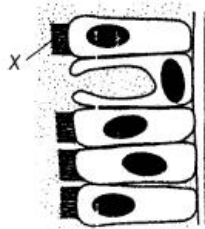
- (a) Flower
- (b) Phloem
- (c) Stomata
- (d) Chlorophyll

Question 5.

Which changes occur when a person breathe in deeply?

	Diaphragm Muscle	External Intercostal Muscles
(a)	Contracts	Contract
(b)	Contracts	No change
(c)	Relaxes	Contract
(d)	Relaxes	Relax

Question 6.



The diagram given above shows part of the lining of the human trachea. What is the function of X?

- (a) Gaseous exchange
- (b) Mucus removal
- (c) Phagocytosis
- (d) Secretion of mucus

Question 7.

The table given below shows the percentage composition of a gas in inspired and in expired air.

%Composition	
Inspired Air	Expired Air

21.0	16.0
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What is the gas?

- (a) Carbon dioxide
- (b) Nitrogen
- (c) Oxygen
- (d) Water vapour

Question 8

The kidneys in human beings are a part of the system for

- (i) nutrition
- (ii) respiration
- (iii) excretion
- (iv) transportation

Question 9

The xylem in plants are responsible for

- (i) transport of water
- (ii) transport of food
- (iii) transport of amino acids
- (iv) transport of oxygen

Question 10

The autotrophic mode of nutrition requires

- (i) carbon dioxide and water
- (ii) chlorophyll
- (iii) sunlight
- (iv) all of the above

Question 11

The breakdown of pyruvate to give carbon dioxide, water and energy takes place in

- (i) cytoplasm
- (ii) mitochondria
- (iii) chloroplast
- (iv) nucleus

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BIOLOGY

CLASS – XII

CHAPTER-2

Control and Coordination

Question 1

Which of the following is a plant hormone?

- (a) Insulin
- (b) Thyroxin
- (c) Oestrogen
- (d) Cytokinin

Question 2

The gap between two neurons is called a

- (a) dendrite
- (b) synapse
- (c) axon
- (d) impulse

Question 3

The brain is responsible for

- (a) thinking
- (b) regulating the heart beat
- (c) balancing the body
- (d) all of the above

THE ASIAN SCHOOL, DEHRADUN
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BIOLOGY CLASS – XII CHAPTER- 3 How do Organisms Reproduce

Question 1.

Asexual reproduction takes place through budding in [NCERT]

- (a) Amoeba
- (b) Yeast
- (c) Plasmodium
- (d) Leishmania

Question 2.

The ability of a cell to divide into several cells during reproduction in Plasmodium is called [NCERT Exemplar]

- (a) budding
- (b) reduction division
- (c) binary fission
- (d) multiple fission

Question 3.

The anther contains [NCERT]

- (a) sepals
- (b) ovules
- (c) carpels
- (d) pollen grains

Question 4.

Characters that are transmitted from parents to offspring during reproduction show [NCERT Exemplar]

- (a) only similarities with parents
- (b) only variations with parents
- (c) both similarities and variations with parents
- (d) neither similarities nor variations

Question 5.

Which among the following diseases is not sexually transmitted? [NCERT Exemplar]

- (a) Syphilis
- (b) Hepatitis
- (c) HIV-AIDS
- (d) Gonorrhoea

Question 6.

Which of the following is not a part of the female reproductive system in human beings? [NCERT]

- (a) Ovary
- (b) Uterus
- (c) Vas deferens
- (d) Fallopian tube

Question 7.

A feature of reproduction that is common to Amoeba, Spirogyra and yeast is that [NCERT Exemplar]

- (a) they reproduce asexually
- (b) they are all unicellular
- (c) they reproduce only sexually
- (d) they are all multicellular

Question 8.

Which among the following statements are true for unisexual flowers? [NCERT Exemplar]

- I. They possess both stamen and pistil.
- II. They possess either stamen or pistil.
- III. They exhibit cross-pollination.
- IV. Unisexual flowers possessing only stamens cannot produce fruits.

- (a) I and IV
- (b) II, III and IV
- (c) III and IV
- (d) I, III and IV

Question 9.

Length of pollen tube depends on the distance between [NCERT Exemplar]

- (a) pollen grain and upper surface of stigma.
- (b) pollen grain on upper surface of stigma and ovule.
- (c) pollen grain in anther and upper surface of stigma.
- (d) upper surface of stigma and lower part of style.

Question 10.

Which among the following statements are true for sexual reproduction in flowering plants? [NCERT Exemplar]

- I. It requires two types of gametes.
- II. Fertilisation is a compulsory event.
- III. It always results in formation of zygote.
- IV. Offsprings formed are clones.

- (a) I and IV
- (b) I and II
- (c) I, II and III
- (d) I, II and IV

Question 11.

Factors responsible for the rapid spread of bread mould on slices of bread are [NCERT Exemplar]

- I. large number of spores.
- II. availability of moisture and nutrients in bread.
- III. presence of tubular branched hyphae.
- IV formation of round-shaped sporangia

- (a) I and III
- (b) II and IV
- (c) I and II
- (d) III and IV

Question 12.

During adolescence various changes occur in the body of humans. Mark one change associated with sexual maturation in males. [NCERT Exemplar]

- (a) Loss of milk teeth
- (b) Increase in body height
- (c) Cracking of voice
- (d) Weight gain

Question 13.

Observe the diagram given along side.



What happens after the above stage?

- (a) The ovary splits open
- (b) Ovary develops into a fruit and ovules into seeds
- (c) The ovules are dispersed
- (d) Germination of seeds takes place

Question 14.

What in your opinion could be the best reason to explain why menstruation is not taking place in a healthy woman?

- (a) Early release of ovum
- (b) Psychological reason
- (c) Fertilisation of ovum
- (d) Build up of female sex hormones in the blood stream

Question 15.

The correct sequence of reproductive stages seen in flowering plants is [NCERT Exemplar]

- (a) gametes, zygote, embryo, seedling
- (b) zygote, gametes, embryo, seedling
- (c) seedling, embryo, zygote, gametes
- (d) gametes, embryo, zygote, seedling

Question 16.

Offsprings formed by asexual method of reproduction have greater similarity among themselves because [NCERT Exemplar]

- I. asexual reproduction involves only one parent.
- II. asexual reproduction does not involve gametes.
- III. asexual reproduction occurs before sexual reproduction.
- IV. asexual reproduction occurs after sexual reproduction.

- (a) I and II
- (b) I and III
- (c) II and IV
- (d) III and IV

Question 17.

Two flowers are identified by a botanist with the following features that flower A is having only stamen and flower B is having both stamen and pistil. Which of the following statements is correct?

- (a) Flower A will bear seeds and flower B cannot bear seeds after fertilisation.
- (b) Flower A will produce pollen grains and flower B cannot produce pollen grains.
- (c) Flower A cannot be fertilised and flower B can show fertilisation.
- (d) Neither flower A and nor flower B can show self-pollination.

Question 18

Asexual reproduction takes place through budding in

- (a) amoeba
- (b) yeast
- (c) plasmodium
- (d) leishmania

Question 19

Which of the following is not a part of the female reproductive system in human beings ?

- (a) Ovary
- (b) Uterus
- (c) Vas deferens
- (d) Fallopian tube

Question 20

The anther contains

- (a) sepals
- (b) ovules
- (c) carpel
- (d) pollen grains

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BIOLOGY

CLASS – XII

CHAPTER- 4

Heredity and Evolution

Question 1.

An example of homologous organs is [NCERT]

- (a) our arm and a dog's foreleg
- (b) our teeth and an elephant's tusks
- (c) potato and runners of grass
- (d) All of the above

Question 2.

The science, which deals with study of heredity and variations is called

- (a) phylogeny
- (b) embryology
- (c) genetics
- (d) palaeontology

Question 3.

Archaeopteryx is a connecting link between

- (a) reptiles and aquatic animals
- (b) birds and insects
- (c) reptiles and birds
- (d) birds and dinosaurs

Question 4.

For palaeontological studies a scientist will gather the evidences from

- (a) study of homology
- (b) study of analogy
- (c) fossils
- (d) All of these

Question 5.

In evolutionary terms, we have more in common with [NCERT]

- (a) a Chinese school boy
- (b) a chimpanzee
- (c) a spider
- (d) a bacterium

Question 6.

Aditya was observing some organisms in lab and tried to compare them. The presence of which organs will confirm to him that they share evolutionary history?

- (a) Analogous organs
- (b) Paralagous organs
- (c) Homologous organs
- (d) None of these

Question 7.

New species may be formed if

- I. DNA undergoes significant changes in germ cells. .
- II. chromosome number changes in the gamete.
- III. there is no change in the genetic material.
- IV. mating does not take place.

- (a) I and II
- (b) I and III
- (c) II, III and IV
- (d) I, II and III

Question 8.

Which of the following statements is not true with respect to variation?

- (a) All variations in a species have equal chance of survival.
- (b) Change in genetic composition results in variation.
- (c) Selection of variants by environmental factors forms the basis of evolutionary processes.
- (d) Variation is minimum in asexual reproduction.

Question 9.

Select the statement that describes characteristics of genes. .

- (a) Genes are specific sequence of bases in a DNA molecule.
- (b) A gene does not code for proteins.
- (c) In individuals of a given species, a specific gene is located on a particular chromosome.
- (d) Each chromosome has only one gene.

Question 10.

If a round, green seeded pea plant (RRyy) is crossed with wrinkled, yellow seeded pea plant (rrYY), the seeds produced in F₁ – generation will be [NCERT Exemplar]

- (a) round and yellow
- (b) round and green
- (c) wrinkled and green
- (d) wrinkled and yellow

Question 11.

From the list given below, select the character, which can be acquired but not inherited. [NCERT Exemplar]

- (a) colour of eye
- (b) colour of skin
- (c) size of body
- (d) nature of hair

Question 12.

According to the evolutionary theory, formation of a new species is generally due to [NCERT Exemplar]

- (a) sudden creation by nature.

- (b) accumulation of variations over several generations.
- (c) clones formed during asexual reproduction.
- (d) movement of individuals from one habitat to another

Question 13.

Select the incorrect statement. **[NCERT Exemplar]**

- (a) Frequency of certain genes in a population changes over several generations resulting in evolution.
- (b) Reduction in weight of the organism due to starvation is genetically controlled.
- (c) Low weight parents can have heavy weight progeny.
- (d) Traits which are not inherited over generations do not cause evolution.

Question 14.

In human males all the chromosomes are paired perfectly except one. This/these unpaired chromosome is/are

- I. large chromosome
- II. small chromosome
- III. Y-chromosome IV X-chromosome
- (a) I and II
- (b) Only III
- (c) III and IV
- (d) II and IV

Question 15.

Rajneesh was studying the fossils of two different types, fossil A was found in upper layer of Earth and B in deeper layers. What can be predicted regarding the age of these fossils?

- (a) A has recently become extinct
- (b) B has become extinct recently
- (c) The time of extinction cannot be determined
- (d) None of the above

Question 16.

A Mendelian experiment consisted of breeding tall pea plants bearing violet flowers with short pea plants bearing white flowers. The progeny all bore violet flowers, but almost half of them were short. This suggests that the genetic makeup of the tall parents can be depicted as **[NCERT]**

- (a) TTWW
- (b) TTww
- (c) TtWW
- (d) TtWw

MCQ Questions for Class 10 Science Chapter 15 Our Environment

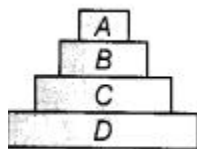
Question 1.

Identify the original source of the energy which flows through a food chain?

- (a) Carbon dioxide
- (b) Glucose
- (c) Oxygen
- (d) Sunlight

Question 2.

A teacher draws the pyramid of energy on board and writes A, B, C and D, in each trophic level as shown in the diagram given alongside. Which level represents the herbivores?



- (a) A
- (b) B
- (c) C
- (d) D

Question 3.

Which of the following groups contains only biodegradable items? **[NCERT]**

- (a) Grass, flowers and leather
- (b) Grass, wood and plastic
- (c) Fruit-peels, cake and lime-juice
- (d) Cake, wood and grass

Question 4.

Which of the following constitutes a food-chain? **[NCERT]**

- (a) Grass, wheat and mango
- (b) Grass, goat and human
- (c) Goat, cow and elephant
- (d) Grass, fish and goat

Question 5.

Which of the following are environment- friendly practices? **[NCERT]**

- (a) Carrying cloth-bags to put purchases ' while shopping .
- (b) Switching off unnecessary light and fans
- (c) Walking to school instead of getting your mother to drop you on her scooter
- (d) All of the above

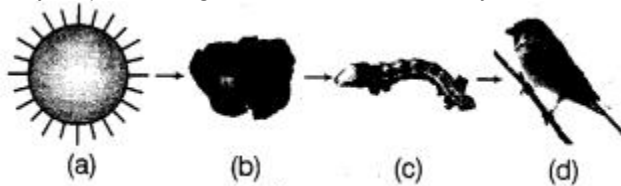
Question 6.

Which of the following statements about food chain are correct?

- (a) It includes repeated eating, i.e. each group eats the other and is subsequently eaten by some other group of organisms.
- (b) It shows a series of branching lines and unidirectional flow of energy.
- (c) It shows the unidirectional flow of energy and proceeds in a progressive straight line.
- (d) Both (a) and (c)

Question 7.

In class, the teacher explained the concept of food chain and energy flow. She made a diagram as given below and asked the students to identify the producer organism in the chain. What do you think will be the student's answer?



Question 8.

An ecosystem includes

- (a) all living organisms
- (b) non-living objects
- (c) both living organisms and non-living objects
- (d) sometimes living organisms and sometimes non-living objects

Question 9.

In the following groups of materials, which group (s) contains only non-biodegradable items?

- (i) Wood, paper, leather
- (ii) Polythene, detergent, PVC
- (iii) Plastic, detergent, grass
- (iv) Plastic, bakelit, DDT

- (a) (iii)
- (b) (iv)
- (c) (i) and (iii)
- (d) (ii) and (iv)

Question 10.

Which of the following statement is incorrect?

- (a) All green plants and blue-green algae are producers.
- (b) Green plants get their food from organic compounds.
- (c) Producers prepare their own food from inorganic compounds.
- (d) Plants convert solar energy into chemical energy.

Question 11.

What will happen if deer is missing in the food chain given below?

Grass → Deer → Tiger

- (a) The population of tiger increases.
- (b) The population of grass decreases.
- (c) Tiger will start eating grass.
- (d) The population of tiger decreases and the population of grass increases.

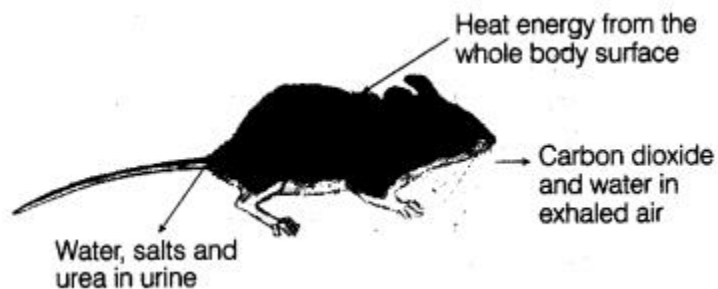
Question 12.

In a class activity, two students were asked to collect different items from their fellow mates and classify them as biodegradable and non-biodegradable. All the items have been identified except three. Find out which one is non-biodegradable among these?

- (a) Jute crafted bag
- (b) A sharpener
- (c) Empty fevistick
- (d) Both (b) and (c)

Question 13.

The diagram shows excretory losses from a rat to the environment.



Which of the following will not be returned to the ecosystem and recycled?

- (a) carbon dioxide
- (b) heat energy
- (c) salts
- (d) urea

Question 14.

Which of the following limits the number of trophic levels in a food chain?

- (a) Decrease in energy at higher trophic levels
- (b) Deficient food supply
- (c) Polluted air
- (d) Water

Question 15.

If a grasshopper is eaten by a frog, then the energy transfer will be from

- (a) producer to decomposer
- (b) producer to primary consumer
- (c) primary consumer to secondary consumer
- (d) secondary consumer to primary consumer

Question 16.

In the given food chain, suppose the amount of energy at fourth trophic level is 5 kJ, what will be the energy available at the producer level?

Grass → Grasshopper → Frog → Snake → Hawk

- (a) 5 kJ
- (b) 50 kJ
- (c) 500 kJ
- (d) 5000 kJ

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BIOLOGY

CLASS – XII

CHAPTER- 5

Management of Natural Resources

Question 1.

Manu and Dheer goes to same school, but their parents drop and pick them separately. After learning about natural resources and their management, they talked to their parents, who arrived on few decisions. What could be the best possible decisions among those given below.

- (a) To walk the small distance to school
- (b) Car pool
- (c) Use common school bus at nearby stop
- (d) All of the above

Question 2.

The pH of water sample collected from a river . was found to be acidic in the range of 3.5 – 4.5. On the banks of the river were several factories that were discharging effluents into the river. The effluents of which one of the following factories is most likely to cause low pH of river water? **[NCERT Exemplar]**

- (a) Soap and detergent factory
- (b) Lead battery manufacturing factory
- (c) Plastic cup manufacturing factory
- (d) Alcohol distillery

Question 3.

Varun has read about some national movements associated with conserving environment and its resources. Chipko movement was one tree hugging movement in which the villagers compelled axemen to stop the cutting of trees by embracing and encircling trees. Help him in finding out the person who was not related with this movement?

- (a) Rajendera Singh
- (b) Gaura Devi
- (c) Sunder Lai Bahuguna
- (d) Chandi Prasad Bhatt

Question 4.

Due to several human activities, waterbodies are polluted resulting in decreased availability of usable water. Maya was testing the samples of polluted water in lab. The presence of which factor will confirm to her that the water sample is polluted.

Select the correct option.

- (a) The presence of coliform bacteria
- (b) High BOD
- (c) Both (a) and (b)
- (d) Either (a) or (b)

Question 5.

The construction of large dams has faced a lot of oppositions like the Sardar Sarovar Project on river Narmada lead to Narmada Bachao Andolan. Raj has to identify the correct problem that lead to such strong oppositions against construction of such dams.

Choose the correct option.

- (a) Large areas of agricultural land and human habitation submerged
- (b) Destruction of large ecosystem and loss of biological diversity
- (c) Displacement of large number of local population without adequate rehabilitation
- (d) All of the above

Question 6.

Ganga has been considered as a symbol of purity but is grossly polluted by waste dumped in it. Government has been making plans to revive this basin. Which steps should according to you be incorporated in the plan to prevent any further polluting of this river? Choose the correct option.

- (a) Renovation of sewage pumps and treatment plants
- (b) Extension of sewerage in unsewered areas to bring waste from those areas to treatment plants
- (c) Installation of new treatment plants
- (d) All of the above

Question 7.

Madhur was reading about rainwater harvesting and its benefits. He came to learn about different types of structures that are build in different states to conserve rainwater. Select the correct option which represent such structures.

- (a) Bhundhis
- (b) Khadins
- (c) Both (a) and (b)
- (d) Compost pit

Question 8.

A student reading an article on sustainable development came across some statements which confused him. Those statements are being given below.

Choose the incorrect statement from them by selecting an option.

- (a) Economic development is linked to environmental conservation
- (b) Sustainable development encourages development for current generation and conservation of resources for future generations
- (c) Sustainable development does not consider the view points of stakeholders
- (d) Sustainable development is a long planned and persistent development

Answer/ Explanation

Question 9.

A programme called "silviculture" was started to replenish the forest resource, so as to meet the diverse needs of living beings. According to you, which statements from those given below will not be considered an advantage of this initiative.

- (a) It maintains a perfect water cycle in nature
- (b) It prevents soil erosion.
- (c) It encourages plantation of multipurpose trees in open lands of urban area
- (d) It produces a large quantity of raw materials for industry

Question 10.

Many international treaties and protocols have been developed and signed by different countries to reduce production of greenhouse gases and environment pollution. A treaty/protocol to reduce CO₂ emission was

- (a) Montreal protocol (1987)
- (b) Kyoto protocol (1997)
- (c) Helesinki declaration (1989)
- (d) None of the above