

SSLC Top Test Series

Biology

Time : 45 Mnts

Score : 20

Std. 10

(Type - A) (1, 2, 3, 4)

Instructions :

- The first 7 minutes is cool - off time
- This time is to be spent for reading the questions paper
- You are not supposed to write anything during the cool - off time
- Read the instructions carefully and attempt the questions

Answer all questions from 1 to 3. Each question carries 1 score. (3 x 1 = 3 score)

1. Complete the following statement.

The parts seen on the papillae that detect taste are the

2. Select the correct answer.

The part which plays a major role in the maintenance of homeostasis.

- (A) Thalamus (B) Hypothalamus
(C) Cerebrum (D) Cerebellum

3. Identify the word pair relationship and fill in the missing word. Mention the relation among the pairs.

Cell elongation : Auxin :: Dormancy of embryo :

Answer any four questions from 4 to 8. Each question carries 2 score. (4 x 2 = 8 score)

4. The symptoms of a disease that affecting the nervous system is given below.

Loss of body balance, irregular movement of muscles, shivering of the body, profuse salivation.

- (a) Identify the disease?
(b) What is the cause of this disease?

5. All reflexes are controlled by spinalcord. Write your opinion about this statement with suitable examples.

6. What are pheromones? Write its functions.

7. Write the difference between sensory neuron and motor neuron.

7.

8. Prepare a flow chart showing the sense of smell.

Answer all questions from 9 to 11. Each question carries 3 score. (3 x 3 = 9 score)

9. Arrange column B and C in accordance with the data given in column A.

A	B	C
(i) Tuberculosis	(a) Protozoa	(1) Reduces the immunity of the body
(ii) AIDS	(b) Fungus	(2) High fever with shivering and profuse sweating
(iii) Malaria	(c) Bacteria	(3) Obstruct the flow of lymph by blocking the ducts
	(d) Virus	(4) Loss of body weight, fatigue, persistent cough

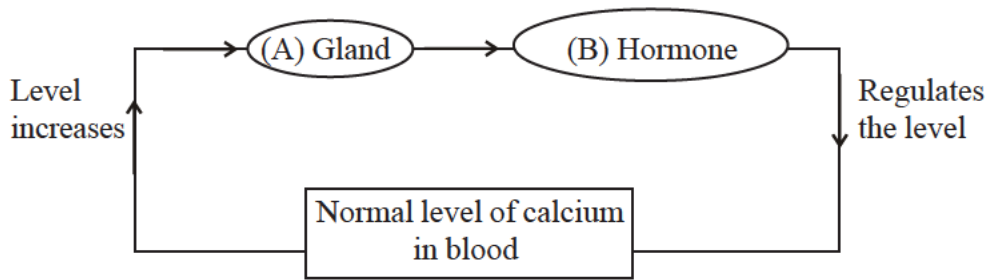
10. Redraw the figure, identify and label the parts based on the indicators given below.



- (a) The point of maximum visual clarity.
(b) The fluid which helps in maintaining the shape of the eye.

(P.T.O.)

11. Observe the illustration and answer the questions given below.



- (a) What is the normal level of calcium in blood?
- (b) Name the gland and hormone indicated in the illustration?
- (c) What is the action of this hormone in regulating the blood calcium level to normal?

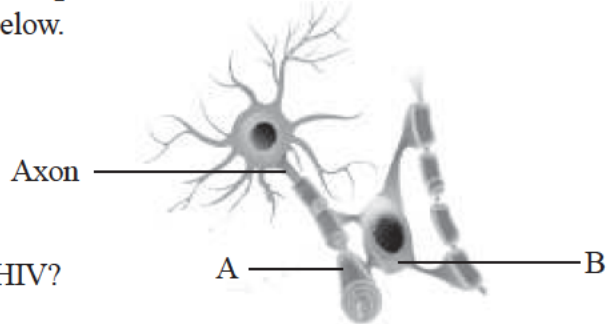
Type - B

Answer all questions from 1 to 3. Each question carries 1 score. (3 x 1 = 3 score)

- 1. Identify the word pair relationship and fill in the missing word. Mention the relation among the pairs.
Ripening of leaves and fruits : Ethylene. ∴ Sprouting of leaves :
- 2. Find the odd one out. Write the common features of others.
Dendrite, Synaptic knob, Central canal, Axon
- 3. Select the correct answer.
The condition in which the conjunctiva and cornea become dry and opaque.
(A) Cataract (B) Glaucoma
(C) Night blindness (D) Xerophthalmia

Answer any four questions from 4 to 8. Each question carries 2 score.(4 x 2 = 8 score)

4. Observe the figure and answer the questions given below.



- (a) Identify the parts indicated as A,B?
- (b) What is the function of the part indicated as A?
- 5. What are the ways by which one gets infected with HIV?
- 6. The symptoms of a eye disease is given below.
Cannot distinguish green and red colours.
(a) Identify the disease?
(b) Write the cause of this disease.
- 7. The name of a disease that affecting the nervous system is given below. What are the causes and symptoms of this disease?

Parkinsons

8. Complete the table.

Hormone	Function
.....(a).....	Cellular uptake of glucose molecules.
Glucagon(b).....

Answer all questions from 9 to 11. Each question carries 3 score. (3 x 3 = 9 score)

9. Redraw the figure, identify and label the parts based on the indicators given below.



- (a) The chamber filled with fluid which helps in maintaining the shape of the eye.
 - (b) The layer which covers and protects the front part of sclera except the cornea.
10. Haemophilia is a genetic disease.
- (a) What is the symptom of Haemophilia?
 - (b) What is the cause of this disease?
 - (c) How temporary relief is brought in Haemophilia patients?
11. Complete the table.

Disease	Cause	Symptom
Gigantism(a).....	Excessive growth of the body.
Acromegaly(b).....(c).....

Type - C

Answer all questions from 1 to 3. Each question carries 1 score. (3 x 1 = 3 score)

1. Select the correct answer.
The pheromone seen in female silk worm moth.
- (A) Muscone (B) Bombykol (C) Auxin (D) Civetone
2. Identify the word pair relationship and fill in the missing word. Mention the relation among the pairs.
Dengue fever : Mosquito :: Malaria :
3. Find the odd one out. Write the common features of others.
Cornea, Iris, Optic nerve, Tympanum

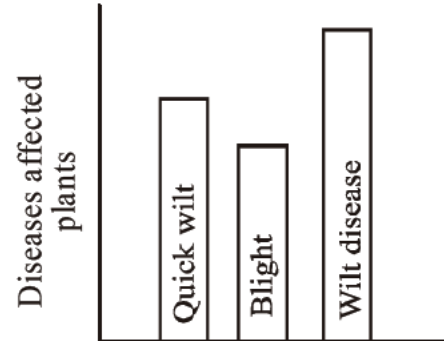
Answer any four questions from 4 to 8. Each question carries 2 score.(4 x 2 = 8 score)

4. Select the statements related to Medulla oblongata from the statements given below.
- (a) Controls involuntary actions (b) Acts as relay station of impulses
(c) Maintenance of homeostasis. (d) Controls breathing.
5. Select the answers from the box related to the statements given below.
Auxin, Gibberellin, Ethylene, Abscisic acid
- (a) Ripening of leaves and fruits
(b) Cell elongation
6. Observe the figure and answer the questions given below.



- (a) Identify the photoreceptor.
- (b) Name the visual pigment present in this photoreceptor.

7. Select the correct pairs.
 (a) Malaria - Virus
 (b) Tuberculosis - Bacteria
 (c) AIDS - Virus
 (d) Nalaria - fungus
8. Observe the graph and answer the questions given below.



- (a) Which is the most affected disease? Name the pathogen.
 (b) Which crop is least affected?
Answer all questions from 9 to 11. Each question carries 3 score. (3 x 3 = 9 score)
9. The stages related to sense of taste is given below. Arrange them in correct order.
 (a) Experience taste.
 (b) Substances responsible for taste dissolve in saliva
 (c) generate impulses
 (d) stimulate the chemoreceptors
 (e) Impulses reach the brain through the respective nerves.
10. Redraw the figure, identify and label the parts based on the indicators given below.



- (a) The part which maintains equilibrium of the body..
 (b) The part which evokes sensations.
11. Arrange column B and C in accordance with the data given in column A.

A	B	C
(i) Insulin	(a) Pituitary	(1) Regulates the blood calcium level.
(ii) Calcitonin	(b) Pancreas	(2) Helps in the growth of the body.
(iii) Somatotropin	(c) Thyroid	(3) Regulates the blood glucose level.



Focus Area Based

Test - 19E

SSLC Top Test Series

Biology

Time : 45 Mnts

Score : 20

Std. 10

(Type - A) (5, 6, 7, 8)

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Answer all questions from 1 to 3. Each question carries 1 score. (3 x 1 = 3 score)

1. Identify the word pair relationship and fill in the missing word. Mention the relation among the pairs.
The theory of Chemical evolution : Oparin and Haldane :: The theory of natural selection :

2. Find the odd one out. Write the common features of others.

Adenine, Thymine, Guanine, Cytocine

3. What are genetic scissors? Write an example.

Answer any four questions from 4 to 8. Each question carries 2 score.(4 x 2 = 8 score)

4. Observe the news and answer the questions given below.

Technology help to identify persons found after long periods of missing due to wars.

(a) Name the technology mentioned in the news.

(b) How this technology help in identifying the relatives?

5. Phagocytosis in a defense action.

(a) Name the white blood cells engaged in this process.

(b) What is the role of lysosome in this defense action?

6. An arguement related to an evolution is illustrated as flow chart. Analyse the flow chart and answer the questions given below.

Giraffes had short necks ———→ They faced food scarcity ———→ they stretched their necks to reach out to tall trees. ———→ Giraffes with long necks.

(a) Who proposed this argument?

(b) Which idea was explained through this arguement?

7. Fever is a condition when the body temperature rises above the normal level.

(a) What is the normal body temperature?

(b) What is the cause of rise in body temperature?

8. What is the role of the following RNA in protein synthesis?

(a) tRNA (b) mRNA

Answer all questions from 9 to 11. Each question carries 3 score. (3 x 3 = 9 score)

9. What are nitrogen bases? Name the nitrogen bases in DNA and the specificity maintained in pairing.

10. Though pesticides are used regulatly, pests are not completely destroyed. Analyse this statement on the basis of the theory of Natural selection?

11. What are the side effects due to the regular use of antibiotics?

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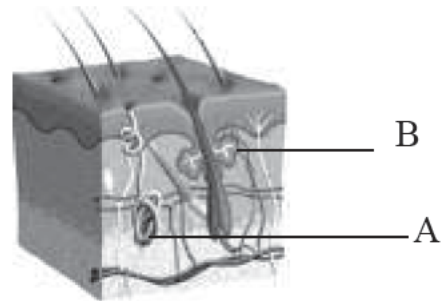
Type - B

Answer all questions from 1 to 3. Each question carries 1 score. (3 x 1 = 3 score)

1. Complete the following statement.
The basis of is the discovery of the fact that genes can be cut and joined.
2. Identify the word pair relationship and fill in the missing word. Mention the relation among the pairs.
RNA : Ribose sugar :: DNA :
3. What are the sources of energy of primitive earth as per chemical evolution theory?

Answer any four questions from 4 to 8. Each question carries 2 score.(4 x 2 = 8 score)

4. The allele combination of plants obtained in the second generation by the hybridization conducted on the basis of two characters are given below. Write their characters.
(Hints: T - Tall, t - Dwarf A- Axial flowers a- Terminal flowers)
(a) TTAA (b) ttAA (c) TtAa (d) Ttaa
5. Observe the figure and answer the questions given below.



- (a) Identify the parts indicated as A, B?
 - (b) Write the function of the parts indicated as A,B?
 6. How do the peculiarities of beaks help finches of Galapagos in their survival?
 7. Everyone cannot receive blood from all blood groups. Justify the statement.
 8. Will the future generation of this bacteria have the ability to produce insulin? Why?
- Answer all questions from 9 to 11. Each question carries 3 score. (3 x 3 = 9 score)**
9. Mosquitoes are not completely destroyed after using mosquito coils. Analyse this situation based on Darwin's theory of natural selection.
 10. Prepare a flow chart related to gene action.
 11. Vaccines are the substances used for artificial immunization.
(a) What are the components of vaccines?
(b) How artificial immunization is made by vaccines?

Type - C

Answer all questions from 1 to 3. Each question carries 1 score. (3 x 1 = 3 score)

1. Identify the word pair relationship and fill in the missing word. Mention the relation among the pairs.
TT : Tall :: tt :
2. Select the correct answer.
Ligase is a
(a) Genetic scissor (b) Genetic glue
(c) Vector (d) Allele
3. Name the scientist who proposed the Theory of Natural selection?

Answer any four questions from 4 to 8. Each question carries 2 score.(4 x 2 = 8 score)

4. Make suitable pairs by using the words given in the box.

Tetanus, BCG, OPV, Tuberculosis, TT, MMR, Polio, Rubella

5. Arrange the following statements related to chemical evolution suitably in the table given below.

- (a) Amino acids
(b) Nucleotides
(c) Polysaccharide
(d) Fatty acids

Simple organic molecules	Complex organic molecules

6. Select the correct statements given below.

- (a) People in the age group 18-60 can donate blood.
(b) Blood donation causes problem to the donor's health.
(c) Everyone can receive blood from all blood groups.
(d) Blood donation can be done once in three months.

7. Select the correct pairs.

- (a) DNA - Two stranded.
(b) RNA - Ribose sugar
(c) DNA - Single stranded
(d) RNA - De oxy ribose sugar

8. How are insulin producing bacteria created?

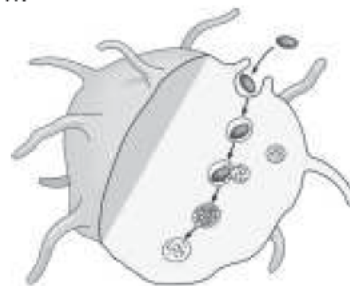
Answer all questions from 9 to 11. Each question carries 3 score. (3 x 3 = 9 score)

9. Select the answers from the box related to the statements given below.

Galapagos, Natural selection, Chemical evolution

- (a) The explanation that leads to the diversity of species.
(b) The hypothesis that life originated as a result of the changes that occurred in the chemical substances in seawater.
(c) The island in which Darwin conducted his studies.

10. Observe the figure and answer the questions given below.



- (a) Name the defense activity.
(b) Name the white blood cells which participate this defense activity.

11. Complete the illustration.

