

GHS Koonathara

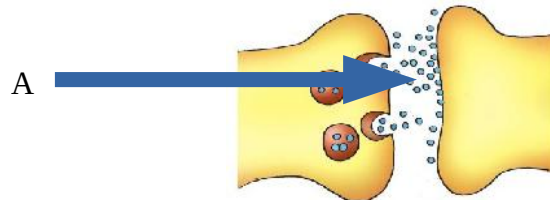
SSLC 2022 March Pre model Evaluation Tool - Biology --- Set A

Time:- 1 hour

Score:- 20

Part I (Answer any 4 from 5 questions) (4x1=4)

1. Find out odd one and explain the reason for others. 1
 (a) Motor neuron, Sensory neuron, Interneuron, Thalamas
 (b) Nipah, AIDS, Hepatitis, Tuberculosis
2. Identify the word pair relationship and fill in the blank. 1
 (a) Taste, touch : External stimuli
 (b) Hunger, thirst : -----
3. Identify A from the image. 1
 Give an example for A.

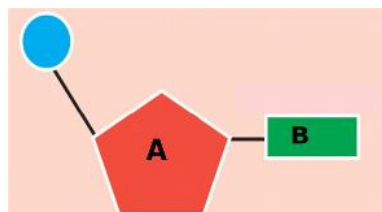


4. Find out the correct pairs from the following. 1
 (a) Bombykol : Female silk worm moth
 (b) Auxin : Animal hormone
 (c) Medulla oblongata : Centre of thought, intelligence
 (d) Mutation Theory : Hugo deVries
5. Correct the underlined words if found any mistakes. 1
 (a) Testing the arrangement of nucleotide is known as Gene mapping.
 (b) 'Theory of Natural Selection' put forward by Lamarck.
 (c) The excessive growth of the body due to the production of somatotropin increases during the growth phase is known as Myxoedema.
 (d) Medicines that are extracted from microorganisms like bacteria, fungi, etc. and used to destroy bacteria are called Antibodies.

Part 2 (Answer any 3 from 4 questions) (3x2=6)

6. List two side effects of antibiotics. 2
7. Observe the illustration and answer the questions. 2

- (a) Identify the illustration.
- (b) What do A and B indicate?



8. Make suitable word pairs from the following. 2

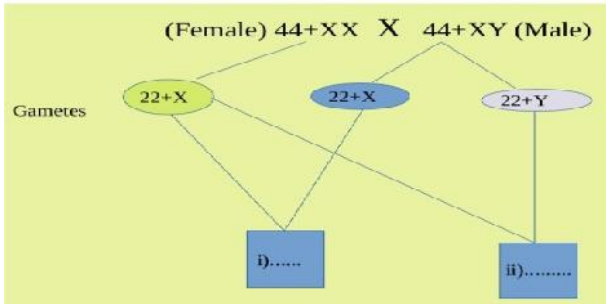
**Eye spot, Lateral line, Planaria,
Housefly, Jacobson's organ,
Ommatidia, Snake, Shark**

9. Complete the table. 2

	Number of strands	Type of sugar	Nitrogen bases
DNA	2	(b) -----	(c) -----
RNA	(a) -----	Ribose sugar	(d) -----

Part 3 (Answer any 2 from 3 questions) (2x3=6)

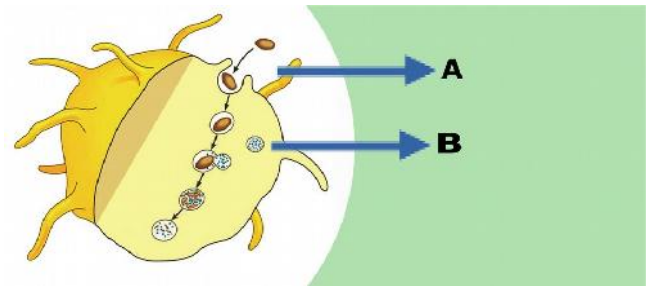
10. Observe the illustration related to sex determination in man and answer the questions. 3



- (a) Fill up i & ii
- (b) What is the genetic mechanism that determines whether a child is male or female?
- (c) What does the number '44' indicate in this illustration?

11. Observe the illustration and answer the questions. 3

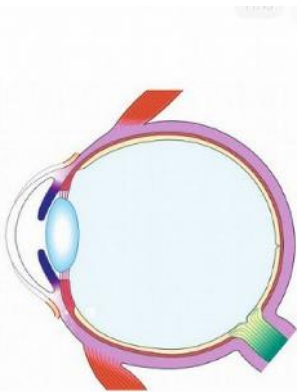
- (i) Which is the process illustrated?
- (ii) What does A and B indicate?
- (iii) Name the white blood cells involved in the process.



12. "Fever is not a disease". Why do we take medicines during fever? Explain your inferences. 3

Part 4 (Answer any 1 from 2 questions) (1x4=4)

13. Redraw the diagram and label the parts by answer the following questions. 4



- (a) The chamber filled with the fluid that nourishes the tissues of the eye.
- (b) Transparent anterior part of the sclera.
- (c) The aperture seen at the centre of Iris.
- (d) Name the layer that has photoreceptors.

14. You are invited to prepare a presentation slide for the cancer awareness class, conducted by the health club. What explanation will you give to the ideas given below. 4

- (a) The disease cancer
- (b) Reason for cancer
- (c) Treatment for cancer

GHS Koonathara

SSLC 2022 March Pre model Evaluation Tool - Biology --- Set B

Time:- 1 hour

Score:- 20

Part I (Answer any 4 from 5 questions) (4x1=4)

1. (a) The blood group without antibody is; 1
(i) A (ii) B (iii) AB (iv) O
(b) Which among the following is the technology used for testing the arrangement of nucleotides?
(i) Gene therapy (ii) Gene mapping (iii) Human Genome Project (iv) DNA profiling
2. Identify the word pair relationship and fill in the blank. 1
(a) Decreases lymphocyte : AIDS
(b) Increases bilirubin :.....
3. Identify this condition from the image and write reason for this condition. 1

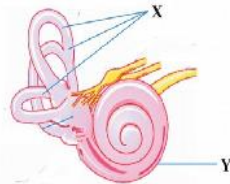


4. Find out the correct pairs from the following. 1
(a) Neurology : Cancer treatment
(b) Ophthalmology : Treatment of eye
(c) Cardiology : Treatment of the nervous system
(d) ENT : Ear, Nose and throat Treatment
5. Correct the underlined words if found any mistakes. 1
(a) The X,Y chromosomes of the mother determine whether the child is male or female.
(b) 'Chemical evolution theory' put forward by Charles Darwin.
(c) Iodine is essential for the production of hormone, calcitonin
(d) The most primitive member of the human race is Australopithecus afarensis

Part 2 (Answer any 3 from 4 questions) (3x2=6)

6. List four ways by which one gets infected with HIV? 2
7. Observe the illustration and answer the questions. 2

- (a) Identify the illustration.
(b) What do X and Y indicate?



8. Make suitable word pairs from the following. 2

**Abscisic acid, musk deer, civetone,
female silk worm moth, muscone,
bombykol, civet cat, Plant hormone**

9. Complete the table.

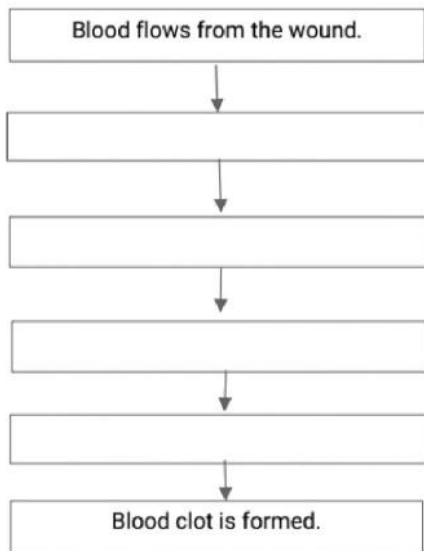
2

A. Plant Hormones	B. Functions
(i)	(a) Sprouting of leaves
(ii) Ethylene	(b)
(iii) Auxin	(c)
(iv)	(d) Dormancy of embryo

Part 3 (Answer any 2 from 3 questions) (2x3=6)

10. Prepare a flowchart of blood clotting using the following statements.

3

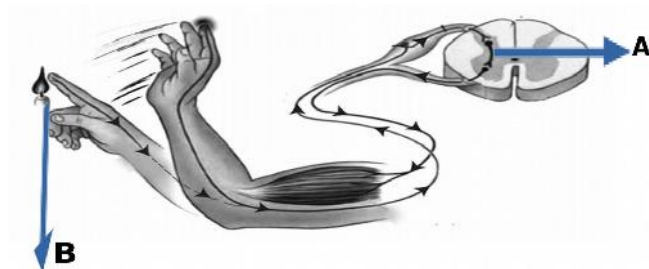


- (a) Thrombin converts fibrinogen to fibrin.
- (b) Thromboplastin converts prothrombin to thrombin
- (c) Tissues degenerate to form the enzyme called thromboplastin.
- (d) The red blood cells and platelets entangle in the fibrin network.

11.

3

- (i) Which is the process illustrated?
- (ii) What does A and B indicate?
- (iii) Give an example for this process.



12. Observe the illustration and answer the questions.

3

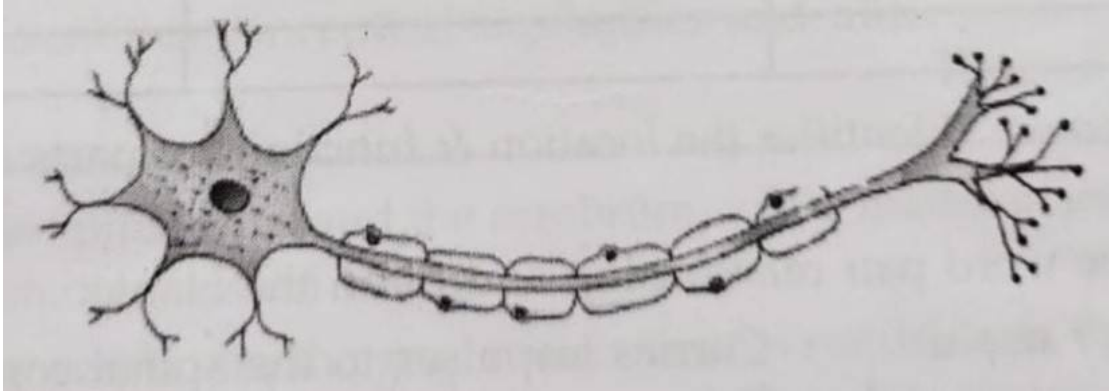


- (a) Why do the forelimbs of these organisms show differences in external appearance?
- (b) What inferences regarding evolution can be drawn from the anatomy of these organs?
- (c) Write any two other scientific evidences which prove evolution.

Part 4 (Answer any 1 from 2 questions) (1x4=4)

13. Redraw the diagram and label the parts according to their functions.

4



- (a) The part that receives messages from adjacent neuron.
- (b) The part that secretes acetylcholine.
- (c) The part that carries messages to outside.
- (d) The cells which encircle neurons to form myelin sheath.

14. 'BCG is the vaccine used against this disease'.

4

- (a) Which disease is mentioned here?
- (b) Write any two ways by which this disease transmit from one person to another?
- (c) Name the bacteria causing this disease.
- (d) Write any two organs affected by this disease.

GHS Koonathara

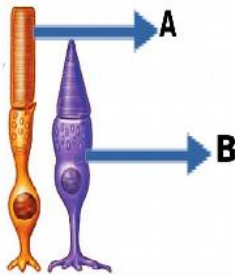
SSLC 2022 March Pre model Evaluation Tool - Biology --- Set C

Time:- 1 hour

Score:- 20

Part I (Answer any 4 from 5 questions) (4x1=4)

1. Find out the odd one and explain the reason for others 1
 - (a) (i) Tuberculosis, (ii) Hepatitis, (iii) Malaria, (iv) Haemophilia
 - (b) (i) Monkey, (ii) Gibbon, (iii) Orangutan. (iv) Gorilla
2. Identify the word pair relationship and fill in the blank. 1
 - (a) Alpha cells : Glucagon
Beta cells :.....
 - (b) Body balancing : Semicircular canals
Hearing :.....
3. Identify A and B photoreceptors with their names. 1



4. Find out the correct pairs from the following. 1
 - (a) Diabetes : Decreased production of insulin
 - (b) Cretinism : Production of thyroxine increases
 - (c) Gigantism : Production of somatotropin decreases during the growth phase
 - (d) Diabetes insipidus : Production of vasopressin decreases
5. Correct the underlined words if found any mistakes. 1
 - (a) The ratio of the dominant and the recessive traits in the second generation is 3 : 1.
 - (b) Two scientists, James Watson and Francis Crick, presented the double helical model of RNA.
 - (c) Monocyte, Identifies and destroys germs specifically.
 - (d) Yellow spot is no vision as photoreceptors are absent

Part 2 (Answer any 3 from 4 questions) (3x2=6)

6. What is the significance of observing 'Dry Day' in schools and at home? 2
7. Observe the illustrations and answer the diseases A, B, C and D. 2



A



B



C



D

8. Make suitable word pairs from the following. 2

**Night blindness, Prolonged deficiency of Vitamin A,
Colour Blindness, Xerophthalmia, Defect of cone cells,
Cataract, The deficiency of Vitamin A,
Lens of the eyes become opaque**

9. Complete the following appropriately on the basis of disease caused by nervous system.

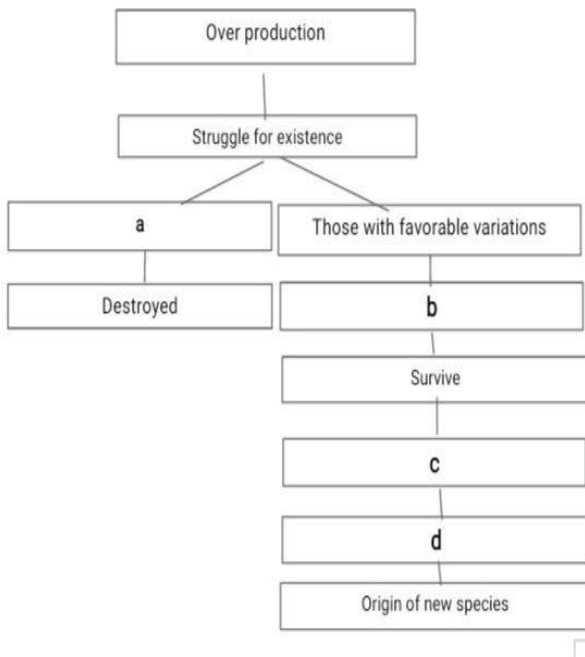
2

Disease	Causes	Symptoms
Alzheimer's	(i).....	Loss of memory, ii).....
(iii).....	Destruction of specialised ganglions in the brain	(iv).....
Epilepsy	(v).....	(vi).....

Part 3 (Answer any 2 from 3 questions) (2x3=6)

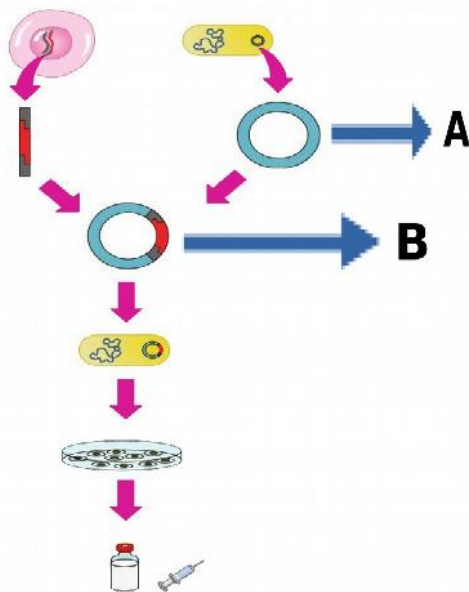
10. Observe the illustration given below and answer the following.

3



- (a) Complete the illustration.
- (b) Name the theory mentioned above.
- (c) Who proposed the theory and write the main concepts in the theory.

11.



- (i) Which is the process illustrated?
- (ii) What does A and B indicate?
- (iii) Give an example for vector.

3

GHS Koonathara

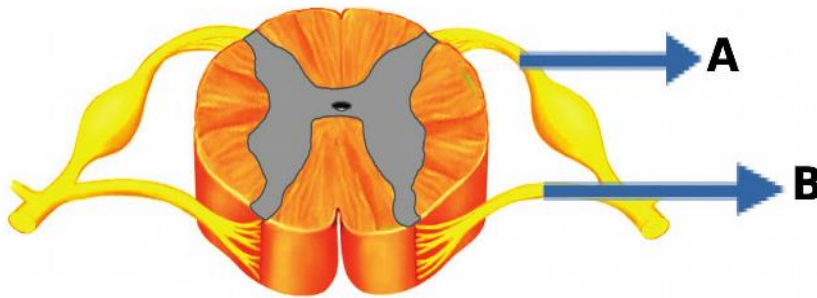
SSLC 2022 March Pre model Evaluation Tool - Biology --- Set D

Time:- 1 hour

Score:- 20

Part I (Answer any 4 from 5 questions) (4x1=4)

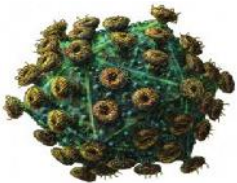
1. (a) Find out the odd one and explain the reason for others 1
(i) Rat fever, (ii) Nipah, (iii) Diphtheria, (iv) Tuberculosis
(b) (i) Dendrite, (ii) Axon, (iii) Synapse, (iv) Axonite
2. Identify the word pair relationship and fill in the blank. 1
(a) Ethylene : Ripening of fruits
..... : Dropping fruits
(b) Cerebrum : Evoke sensations
Hypothalamus :
3. Identify A and B of the spinal cord 1



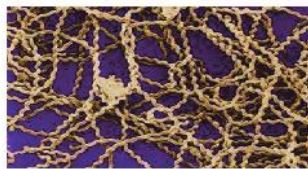
4. Find out the correct pairs from the following. 1
(a) Gene mapping : Identify the location of a gene in the DNA responsible for a particular trait.
(b) Motor neuron : Carries impulses to the spinal cord
(c) Sensory neuron : Carries the information from spinal cord to related muscles
(d) DNA finger printing : Testing the arrangement of nucleotides in DNA
5. Correct the underlined words if found any mistakes. 1
(a) The sympathetic system and the parasympathetic system together form the central nervous
(b) Gene mapping is a method of treatment in which the genes that are responsible for diseases are removed and normal functional genes are inserted in their place.
(c) AIDS can spread through insects like mosquitoes, houseflies etc.
(d) Sickle cell anaemia is Lifestyle disease.

Part 2 (Answer any 3 from 4 questions) (3x2=6)

6. Write down four benefits of DNA finger printing? 2
7. Observe the illustrations and answer the questions below. 2



A



B

- (a) Identify the organisms A and B
- (b) Write down two reasons for spreading of disease by organism B

8. Make suitable word pairs from the following. 2

**Parathormone, Thymus gland,
Cortisol, Parathyroid, pineal gland,
Adrenal gland, Youth hormone,
Melatonin**

9. Complete the table. (Many proteins that can be used for the treatment of diseases in humans are produced through genetic engineering).

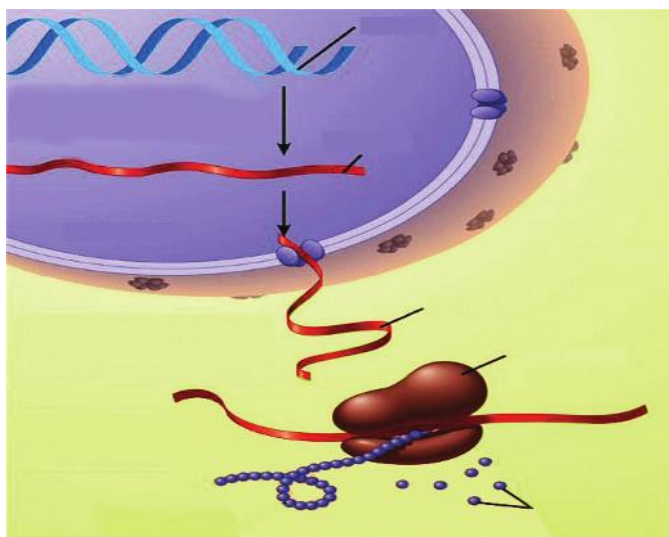
2

Protein required for treatment	Disease/Symptom
Interferons	(a) -----
(b) -----	Diabetes
Endorphin	(c) -----
(d) -----	Growth disorders

Part 3 (Answer any 2 from 3 questions) (2x3=6)

10. Observe the illustration and answer the questions.

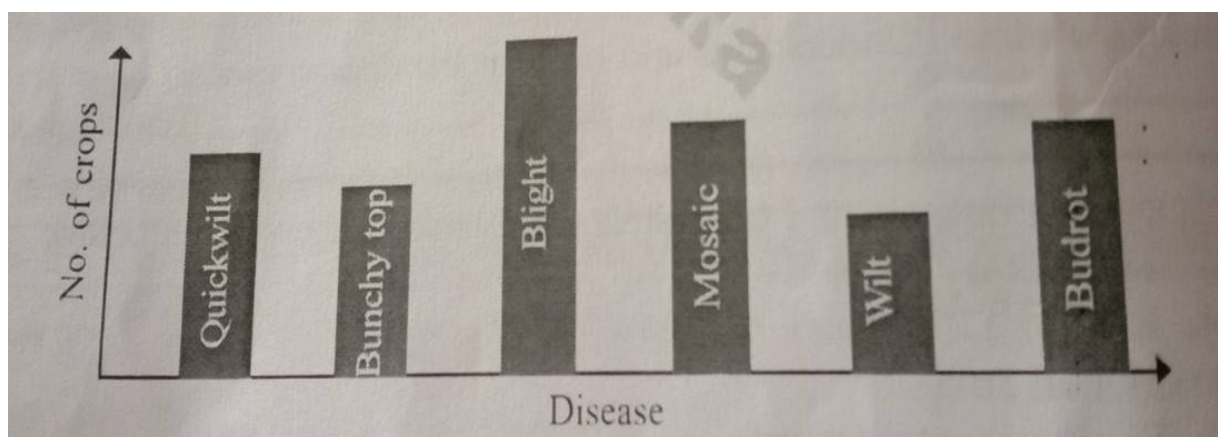
3



- (a) Name the process mentioned here.
- (b) Write down the different steps of this process in correct order.

11. A study of the Agriculture Department on plant diseases in a panchayath is given below as a graph. Analyse this and answer questions.

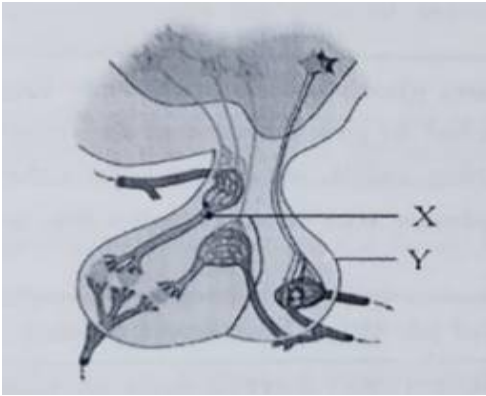
3



- (a) Which is the mostly affected crop?
- (b) Name the disease that affects pepper.
- (c) What are the fungal diseases that affected the plant of that area?
- (d) Name the pathogen which causes Bunchy top in banana?

12. Observe the diagram and answer the following.

3

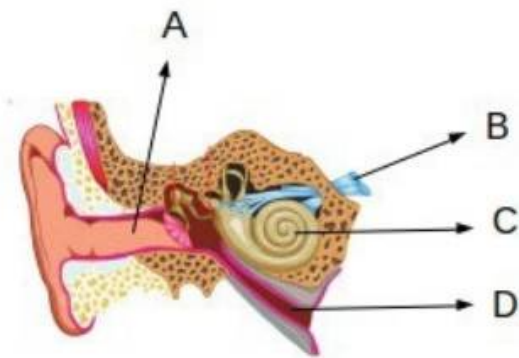


- (a) Identify X , Y. 1
- (b) Write the functions of Y ?

Part 4 (Answer any 1 from 2 questions) (1x4=4)

13. Redraw the given diagram and label the following parts. Answer the questions

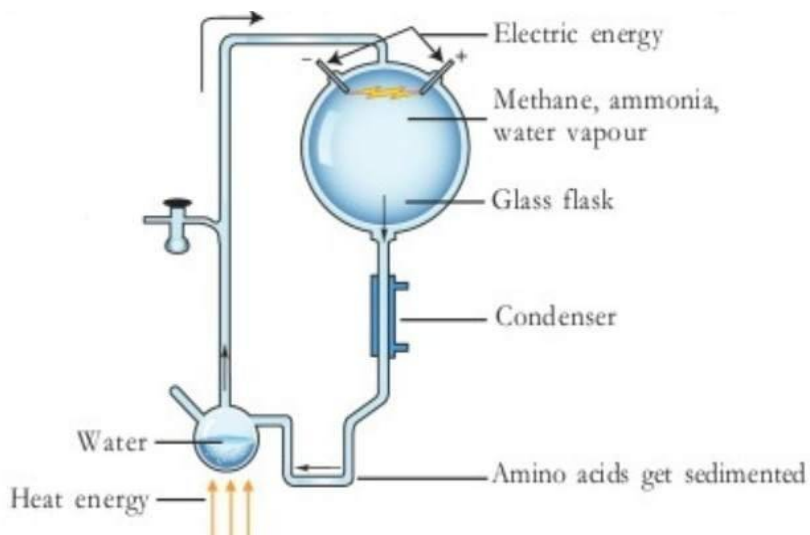
4



- (a) Identify the parts A, B, C, and D.
- (b) What is the role of D?
- (c) How ear help in maintaining the balance of the body?

14. Observe the illustration and answer the questions below.

4



- (a) Which concept of Evolution was proved by this Experimental set up?
- (b) Name the scientists who conducted the Experiment
- (c) What are the conclusions of this experiment?
- (d) To which Hypothesis, this experiment gave more acceptance?