

**S.S.L.C. EXAMINATION, MARCH-2012**  
**BIOLOGY (English)**

Time : 1½ Hours

Total Score : 40

**Instructions :**

- First 15 minutes are allowed as cool off time. During this period, read and comprehend the questions well.
- Answer **all** questions except question numbers 7 and 8.
- Answer **any one** question from question numbers 7 and 8 where choices are given.
- Write all subquestions of the choice you selected.
- Score of each question is given against them.

- |   |                    |
|---|--------------------|
| <p>1. Find the odd one, note down common features of the others.</p> <p>(a) Thyroxin, Prolactin, Ethylene, Oxytocin.</p> <p>(b) Cornea, Lens, Cochlea, Optic nerve.</p> <p>(c) Ardipithecus, Archaeopteryx, Australopithecus, Dryopithecus.</p> | <p>Score<br/>3</p> |
| <p>2. Find out 'word pair relation' and fill up.</p> <p>(a) Darwin - Theory of Evolution<br/>De Vries - _____</p> <p>(b) Cerebrum - Thought<br/>Cerebellum - _____</p>  | <p>2</p>           |
| <p>3. Suku feels difficulty of vision in dimlight.</p> <p>(a) Identify the disease, from among the following.</p> <p>(i) Haemophilia</p> <p>(ii) Night blindness</p> <p>(iii) Glaucoma</p> <p>(b) What is the reason for this disease ?</p>     | <p>1</p>           |

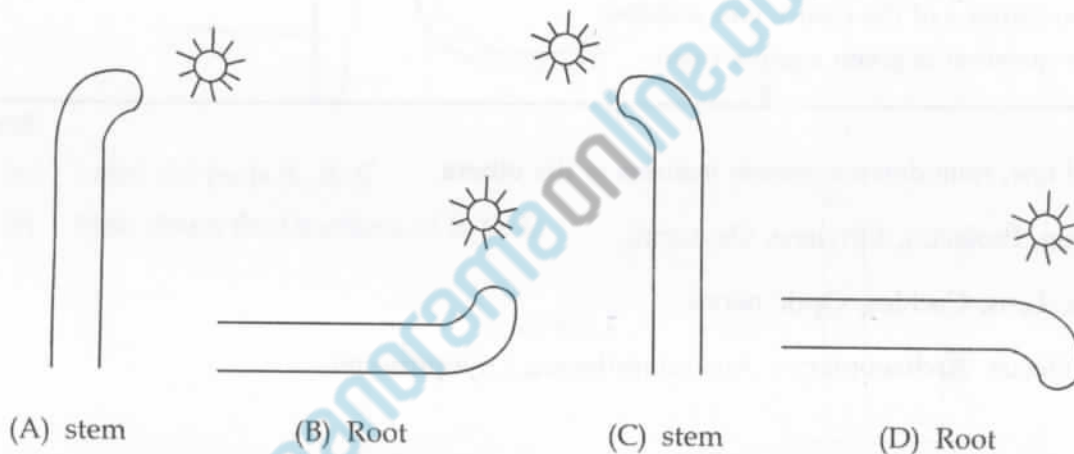
4. Given below are symptoms of a disease.

- (i) RBC undergo change in shape and transform into sickle-shaped cells.

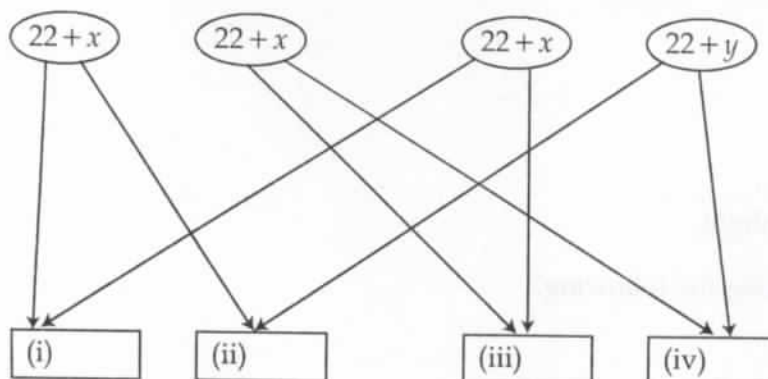
(ii) Oxygen transport to the tissues is reduced

- (a) Identify the disease
- (b) What is the reason for this disease ?

5. Which among A, B, C and D is the wrong illustration ? Why ?



6. Given below is the illustration showing how sex determination is taking place in human beings.



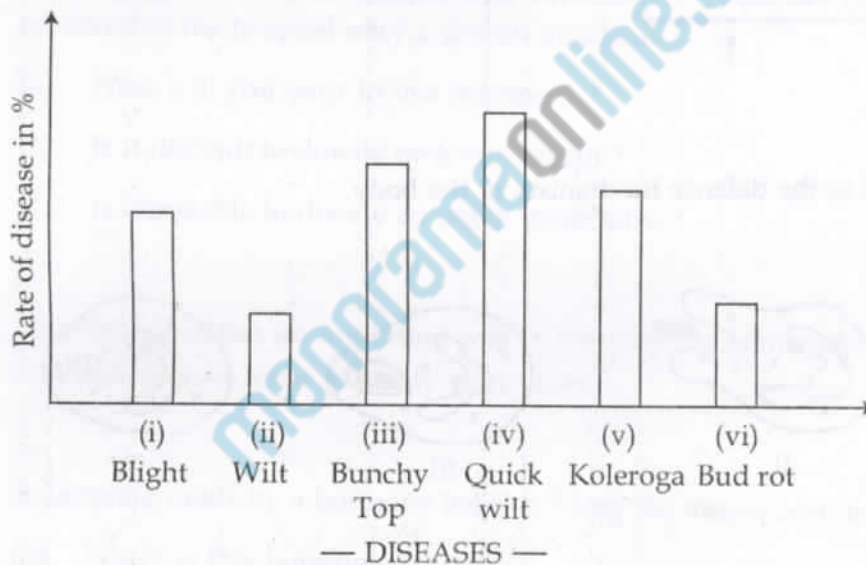
- (a) Observe the illustration and examine the 4 types of possible offsprings. Specify their sex chromosomes.
- (b) What are the inferences you arrive at from this illustration ?

7. Rearrange B, C, D according to data given in A.

A Disease	B Symptom	C Causative organism	D Mode of transmission
(a) Tuberculosis	(1) Blood and Mucus in stool	(i) Virus	(p) Culex mosquito
(b) Dysentery	(2) Obstruction of lymph flow	(ii) Protozoa	(q) Anopheles mosquito
(c) Filariasis	(3) Chest pain	(iii) Filaria worms	(r) Water, food
	(4) Diarrhoea, Vomiting	(iv) Bacteria	(s) Air

OR

Observe the graph, illustrating the data of the diseases affected the plants in Ramu's farm. Analyse the graph and answer the given questions.



- Identify the plants which are affected.
  - Which is the most affected crop?
  - Note down the causative organism of each disease.
8. Using given indicators, construct RNA nucleotide and any one DNA nucleotide.

A

C

G

T

u



Deoxyribose



Phosphate



Ribose

OR

Examine the symptoms of genetic disorders. Sort them and tabulate.

(i) 44 + X	(ii) Mental retardation
(iii) low immunity	(iv) Feminity

Based on the symptoms, diagnose and give suitable title to the columns in the table.


9. Observe the picture related to the defence mechanism of the body.

2



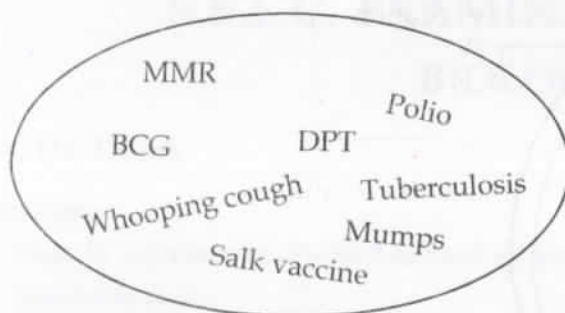
- (a) What is this reaction ?
- (b) Prepare a flow-chart illustrating the different stages in this reaction.

10. Even after piercing the nostrils of cattles for tying the nasal knot for several generations, the new born calves are to be pierced again.

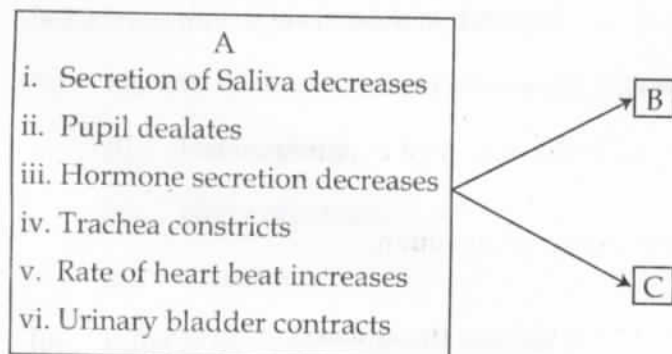
3

- (a) Can you relate this statement to any idea in the history of evolution ?
- (b) Examine the status of this theory in the history of evolution.
- (c) Examine the reason for this theory becoming rejected or outdated.

11. Make pair of the indicators given as disease and its vaccine.

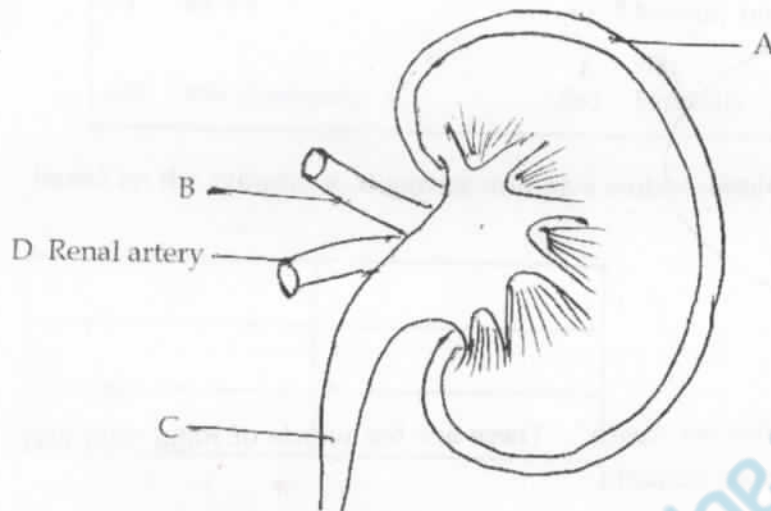


12. "Allow anyone to take my eyes after my death". These are the words of Raju, who was admitted to the hospital after a serious accident. 4
- How will you react to this statement?
  - Is it difficult to donate eyes after death?
  - Is it possible to donate an organ while alive?
13. Hypothalamus has an important role in maintaining homeostasis. Analyse this statement and note down 4 ideas to justify your views. 4
14. In lactating mothers, a hormone helps to bring the uterus back to the original state. 2
- Which is this hormone?
  - Note down another function of this hormone
15. Segregate the appropriate statements from column (A) as the functions of sympathetic (B) and Parasympathetic (C) nervous system. 3





16. Copy down the picture



- (a) Label the parts A, B, C  
(b) Note down the functions of B, C, D.

- o o o -