

S.S.L.C. EXAMINATION, MARCH - 2014

BIOLOGY

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 any one choice where choices are given.

Score

1. Find out 'word pair relation' and fill in the blanks.

- (a) Dimlight : Rod cells
Brightlight : _____
- (b) Euglena : _____
Insects : Ommatidia
- (c) Frog : Urea
Tadpole : _____

2

2. Find the odd one. Write down the common feature of the others.

- (a) Bypass surgery, ECG, EEG, Pacemaker
(b) Adenine, Cytosine, Thymine, Uracil

3. Observe the part of an awareness notice given below :

1

- Precautions :
- Avoid unprotected sexual relationship.
 - Avoid unsterilized injection needles.

- (a) Identify the disease.
(b) How unsterilized injection needles transmit this disease ?

4. "Super bugs' were not naturally created'. Evaluate this statement and write your opinion.

1

P.T.O.

2

5. Symptoms of a disease related to nervous system is given below.

- (a) Tremor due to the irregular involuntary movement of muscles.
(b) Uncontrolled flow of saliva.
(c) Loss of balance of the body.
(i) Identify this disease and write down its name.
(ii) What is the cause of this disease ?

6. Rearrange the following based on the relationship between different Primates.

Chimpanzee - Gorilla - Gibbon - Orangutan

7. Correct the mistakes and rearrange the given flow chart of hearing process.

- (a) Eardrum → (b) Cochlea → (c) Eardrum
(d) Ear ossicles → (e) Oval window → (f) Auditory nerve

8. Observe some characteristics of genetic disorders. Sort them and tabulate with suitable title

45 + XX/XY
Female Character
Mental retardation
47 Chromosomes
Dwarfness
44 + X

9. Observe the figure and

- (a) Identify the process and write its name.
(b) Write the step of the process in each stage.



3

1039

Score

10. The quantity of urine excreted by a person in different seasons is given below. Analyse it and answer the following questions.

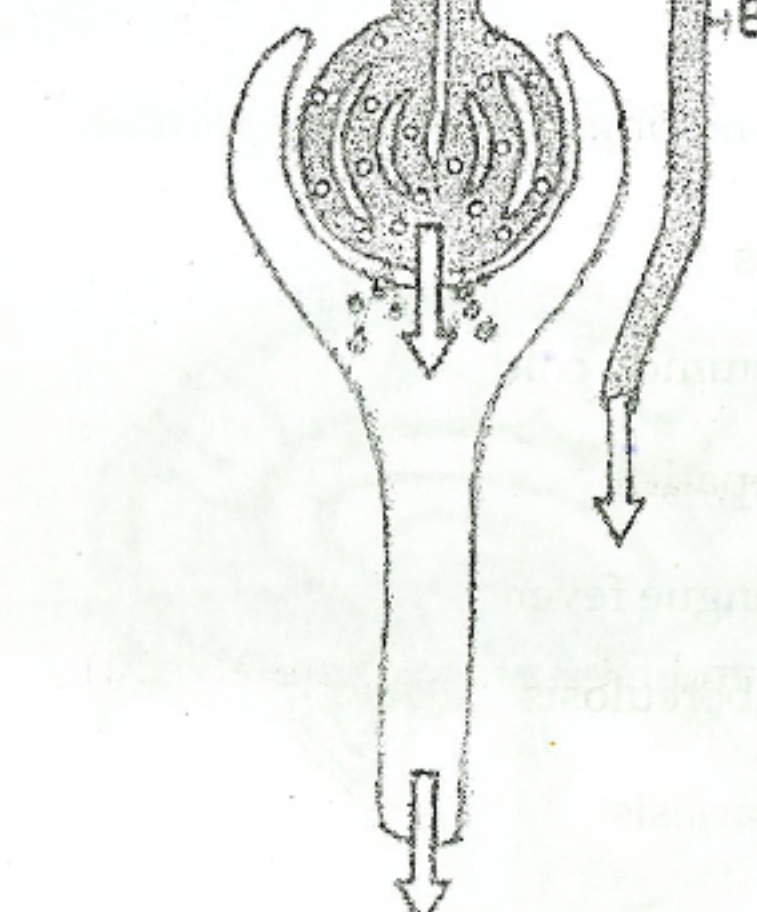
3

Season 1	Season 2	Season 3	Season 4
1.5 litre/day	1.4 litre/day	1.9 litre/day	1.8 litre/day

- (a) Which is the coldest season ?
(b) Which hormone is responsible for the variation in quantity of urine ?
(c) How this hormone regulates water level of the body ?

11. Observe the figure :

3



- (a) Identify A and B
(b) How the difference in size between A and B helps in the function of kidney ?

12. DDT was sprayed on some insects as an experiment. Among them some died and some survived. A second generation was created by mating the survived ones. Again DDT sprayed. This process was repeated on five generations. The result is given in the table. Analyse it and answer the following questions.

3

Generations	Percentage of survived insects
1	10
2	20
3	30
4	40
5	50

- (a) Interpret the result given in the table.
(b) What scientific explanation can you give for this result ?
(c) What may be the result if the experiment is continued ?

P.T.O.

4

1039

Score

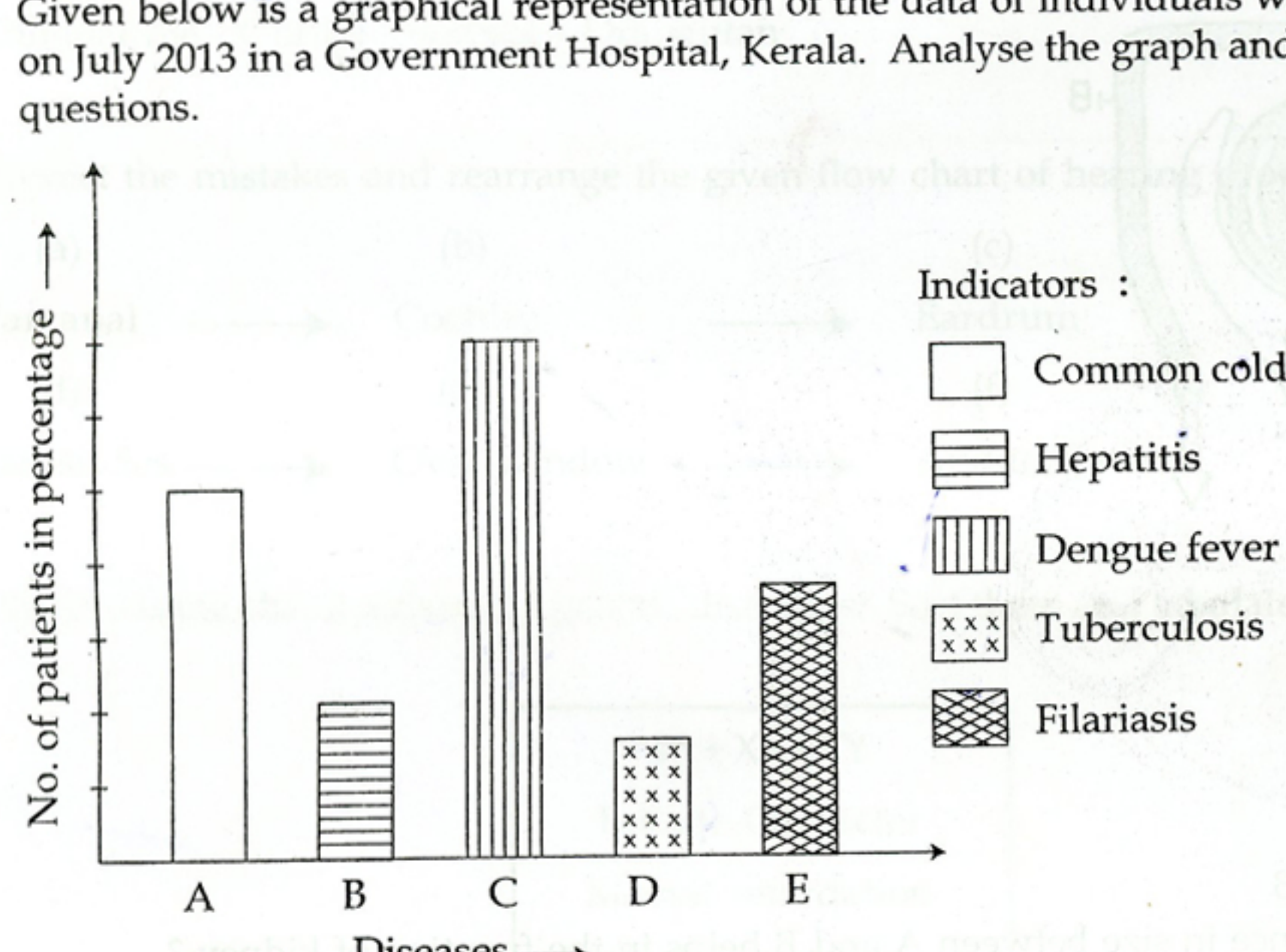
13. Rearrange B and C according to the data given in A.

4

A	B	C
Disease	Pathogen	Mode of transmission
(a) Chicken pox	(i) Plasmodium	(1) Culex mosquito
(b) Filariasis	(ii) Bacteria	(2) Air
(c) Cholera	(iii) Virus	(3) Food and Water
(d) Malaria	(iv) Filarial worm	(4) House fly
	(v) Fungus	(5) Anopheles Mosquito

OR

Given below is a graphical representation of the data of individuals who came for treatment on July 2013 in a Government Hospital, Kerala. Analyse the graph and answer the following questions.



- (a) Which disease is common in this locality ?
(b) Write a major symptom of this disease.
(c) Prepare two posters to be exhibited in an awareness programme against this disease.

14. Observe the table :

4

	Difference in hormone secretion	Disorder	Symptoms
(i)	Under secretion of the hormone in children	(x)	(1)
(ii)	Over secretion of the hormone in children	(y)	(2)
(iii)	Over secretion of the hormone in adults	(z)	(3)

- (a) Complete the table based on the hormone somatotropin.
(b) This hormone is not a tropic hormone. Why ?

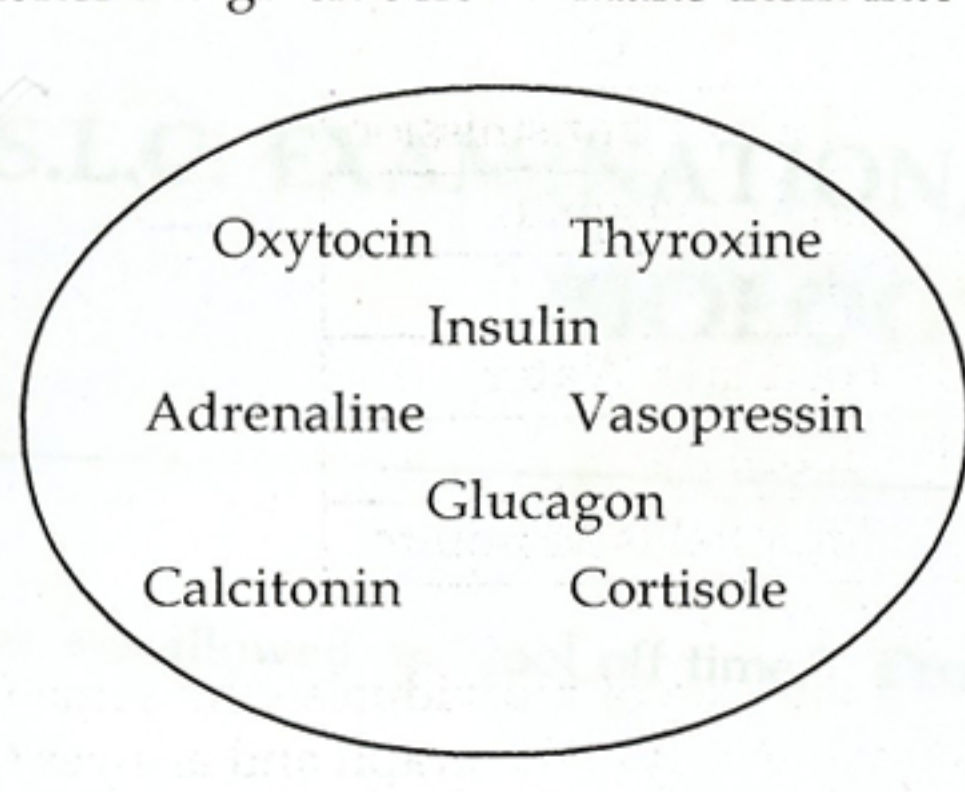
OR

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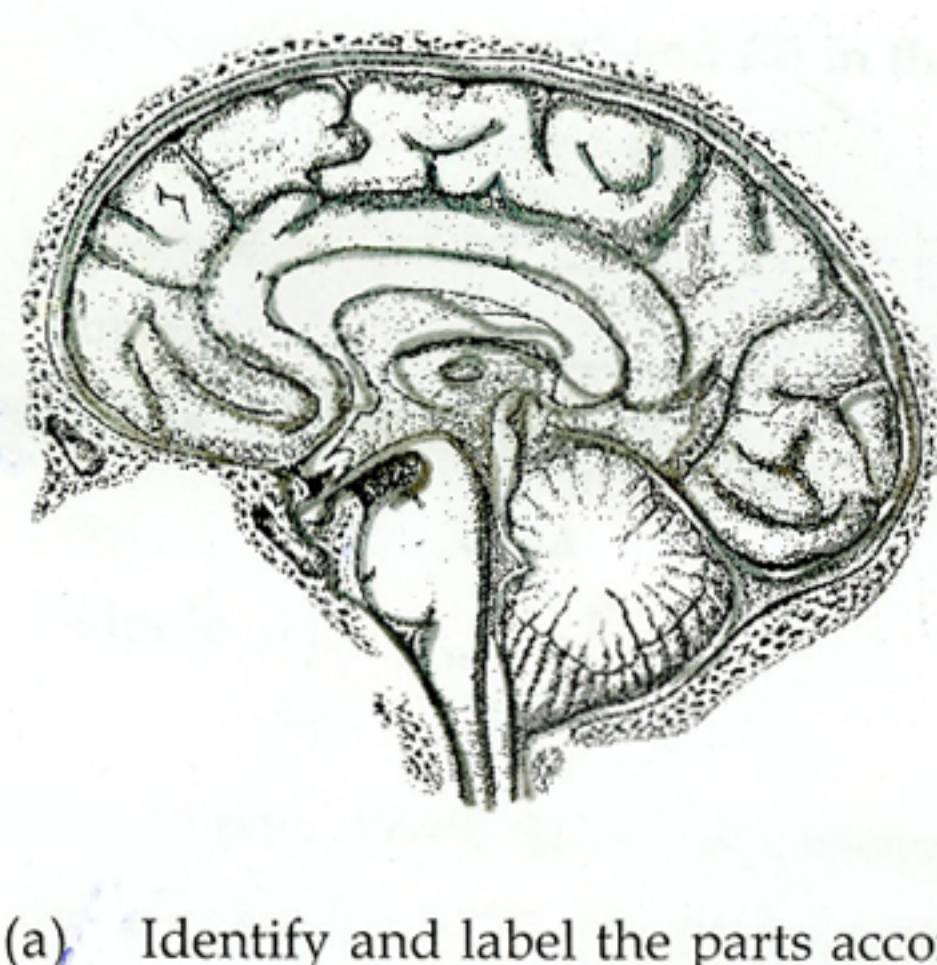
Score

Some hormones are given below. Make them into 4 pairs. Give reasons for pairing.



15. Redraw the picture and answer the following questions.

4



- (a) Identify and label the parts according to the functions given below :

- (i) the part which maintains balance and equilibrium of the body
(ii) the part which controls heart beat.
(iii) the part which controls voluntary activities.

- (b) Write one more function for each of these three identified parts.