Sl. No.

SSLC MODEL EXAMINATION, FEBRUARY - 2017. BIOLOGY

(English)

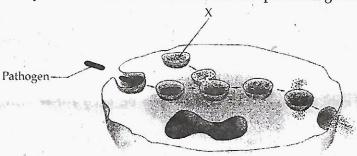
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*	(2) (3)	The score and tin For questions 5 a		-		conside	red while	answering	g.	
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		tify the correctly	-	S.					, "	
	(i)	shark -	lateral line							
	(ii)	snake -	ommatidia							4
96	(iii)	planaria -	eye spot		مند والعام	-pro-	باللابس	100	. Killian	-4-
	(iv)	housefly -	Jacobson's o	~	/···\ •	/····				
	(a)	(ii) alone		(b)	(ii) and					THE SHAPE RE
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- 5. (A) We have two eyes, but we see only one image of the object. Justify the statement.
 - (B) In the medical test for the recruitment of pilots, Gopi was diagnosed with colourblindness and he was certified "unfit for pilot recruitment". Colourblindness leads to Gopi's unfitness. Justify.
- 6. Analyse the illustration and answer the questions given below:



- (a) Identify the process and define it.
- (b) Identify X and explain its role in the process.
- 7. Internal ears help us in hearing as well as in maintaining the balance of the body. The chart given below compares how hearing and body balancing is effected by the internal ears. Examine the chart and complete it appropriately.

HEARING	BODY BALANCING
(i) part of internal ear	Vestibular apparatus of internal ear
Sensory hair cells present in(ii) act as receptors	Sensory hair cells present in the vestibule and semicircular canal act as receptors
Vibrations created by sound waves generate impulses	Body movements generate impulses
Impulses reach (iii) of brain through (iv) and hearing is effected	Impulses reach (v) of brain through (vi) and body equilibrium is maintained

- 8. Appu is a farmer. He uses Ethyphon in his rubber plantation and Abscisic acid in his orchard.
 - (a) What is Ethyphon? What is its use in rubber plantation?
 - (b) What is the use of Abscisic acid?
- 9. Ramu says, "Man evolved from monkeys".Gopu says, "Man evolved directly from chimpanzees".Mark your opinion and cite reasons in the table given below :

	agree/disagree	Reason
Ramu's opinion		
Gopu's opinion		alem perturbation

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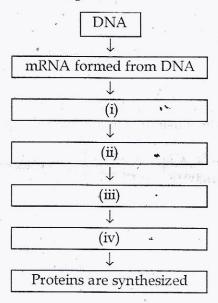
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Score

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10. DNA does not participate directly in protein synthesis. Illustrate the process of protein synthesis with the help of flow chart given below.



- 11. Substantiate the following statements by giving evidences:
 - (a) Bacteria and man have extremely different appearance, but they show close resemblances in their cell structure and physiology.

 (any 4 evidences)
 - (b) Plants also have defence mechanisms. (any 2 evidences)
- 12. Given below is the hybridisation between two pea plants one with green colour and round seeds and the other with yellow colour and wrinkled seeds.

Parental Plants

Green coloured round seed × Yellow coloured wrinkled seed ggww

Gametes GW ggw

First generation - GgWw

Self pollination in first generation - GgWw × GgWw

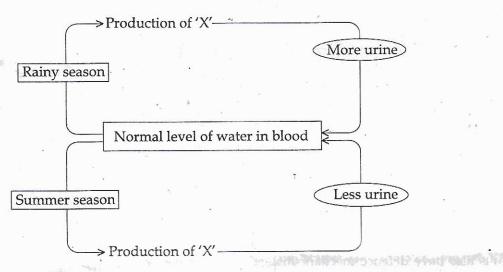
Second Generation

- (a) Write the alleles of the gametes formed while self pollinating the first generation.
- (b) Identify the new combination of characters that appear in the second generation.
- (c) What reason did Mendel give for the appearance of new combination of characters in the second generation?

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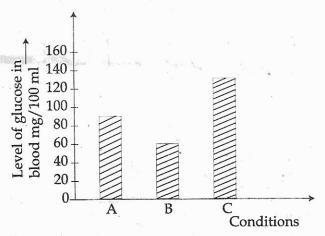
- 13. The N.S.S. unit of your school along with Regional Cancer Centre is organising a <u>Free Medical</u> Camp for the Early Diagnosis of Cancer
 - (a) What is cancer?
 - (b) Early diagnosis of cancer is crucial in the treatment of cancer. Comment.
- 14. (A) In all seasons, Ramu drinks 10 litres of water per day. Given below is an illustration of how the normal level of water is maintained in his blood during rainy season and summer season. Analyse the illustration and answer the questions given below.



- (a) Identify 'X'.
- (b) Explain how 'X' acts to produce more urine during rainy season.
- (c) Explain how hypothalamus and pituitary glands are related to 'X'.

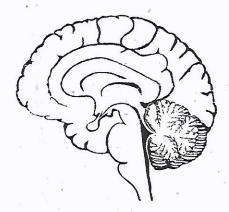
OR

(B) The level of glucose in blood is maintained by the combined action of insulin and glucagon. The graph given below shows three conditions of glucose level in blood.



- (a) Which condition shows the normal level of glucose in blood?
- (b) Which among the two hormones function in condition B and explain its action?
- (c) What is the role of insulin in liver and muscles?

15. Draw the figure, and answer the questions given below.



- (a) Label the following parts in the figure :
 - (i) Cerebrum
 - (ii) Thalamus
 - (iii) Cerebellum
- (b) Write one function of each part.