FIRST TERM MODEL EXAMINATION

STD: X

BIOLOGY

Time : 1 ½ Hr Total score: 40

Instructions

- First 15 minutes given as 'cool off time' in addition to 1 ½ hours. Use this time to read and understand the questions.
- Answer the questions according to the score and time.
- Write the question numbers for main and sub questions correctly.

Answer any Five questions from 1 to 6. Each question carries 1 score. (5x1 = 5)

1. Choose the correct statements related to sense organs from those given below.
   a. Chemoreceptors seen on papillae are called taste buds.
   b. Receptors are uniformly distributed all over the skin.
   c. Impulses from the olfactory receptors reach the cerebrum through the olfactory nerve.
   d. Taste is experienced when impulses from the taste buds reach the cerebellum.
2. How is myelin sheath formed?
   A. Schwann cells repeatedly encircles the axons.
   B. Dermal tissue encircle the axon.
   C. Schwann cells repeatedly encircle cell body.
   D. Muscle cells encircle the nerve cell.
3. Find the missing item in the second pair on the basis of the relationship between the items in the first pair. Write the nature of the relationship between the items also.
   a. Neurons in the brain are destroyed: Alzheimer's disease
   b. Continuous and irregular form of electric charges in the brain:……..
4. Choose the correct answer from the alternatives. Which is the function of abscisic acid?
   A - Cell differentiation.
   B - Dropping of fruits.
   C - Grow the terminal buds.
   D - Dormancy of embryo in seed.
5. Identify the correct pair.
   a) Cataract - Eye lens becomes opaque
   b) Xerophthalmia - The reabsorption of aqueous humour is blocked.
   c) Colour - blindness - Cornea becomes dry and opaque.
6. Find the odd one in the group. Write the common feature of the others.
   Vestibule, Conjunctiva, Eustachian tube, Cochlea

Answer any Six questions from 7 to 13. Each question carries 2 score. (6x2 = 12)

7. What roles do the following parts play in reflex action?
   a) Inter neuron;
   b) Motor neuron

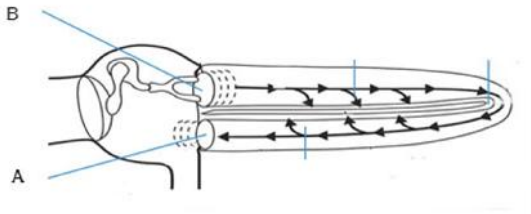
8. Make appropriate pairs using the items given in the box.

Snake, Ommatidia, Lateral line, Planaria, Jacob-son's organ, Shark, Eye spot, House-fly

9. Honey bees live in colonies.
   a) The substances that help organisms for such a life are known by a common name. What is it?
   b) What are the functions of such substances?
10. Classify the following statements in the given table.
   a. Urinary bladder contracts.
   b. Glycogen is converted to glucose.
   c. Trachea dilates.
   d. Production of saliva increases.

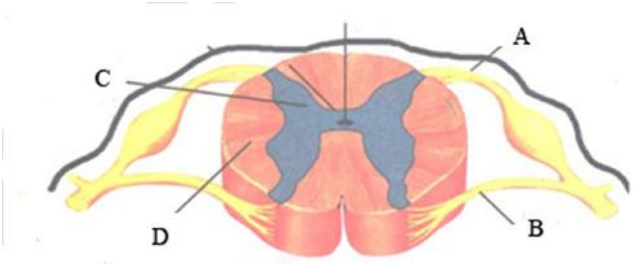
Sympathetic system	**Parasympathetic system**

11. Observe the illustration and answer the question?



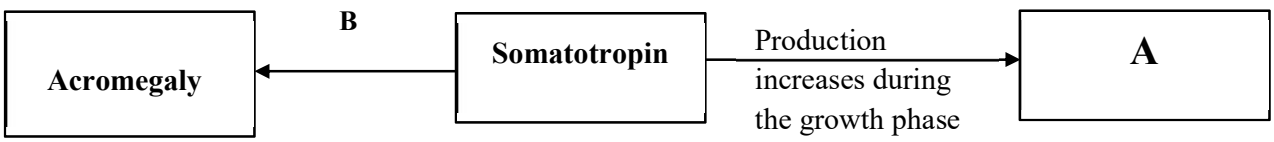
   a. Identify the part A and B?
   b. Write the functions of part indicated A and B?

12. Observe the figure and answer the questions.



   a) Name the parts marked 'C' and 'D'.
   b) Write the functions of the parts marked 'A' and 'B'.

13. Observe the illustration and answer the questions.

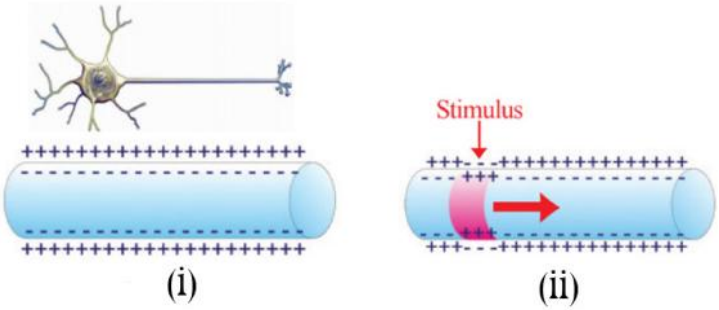


a) Identify ‘A’ and 'B'.
b) What are the symptoms of acromegaly?

Answer any Six questions from 14 to 20. Each question carries 3 score. (5x3 = 15)

14. Complete the flow chart related to the balancing of the body.
Body movements create movement of fluid inside the vestibule and semicircular canals→A→B→ C → Cerebellum enables muscular movements that maintain the balance of the body.

15. Given below are figures related to the generation of impulses in a neuron.



a) How are ions distributed in fig (1)?
b) Why is it so? What change has occurred in (ii)?

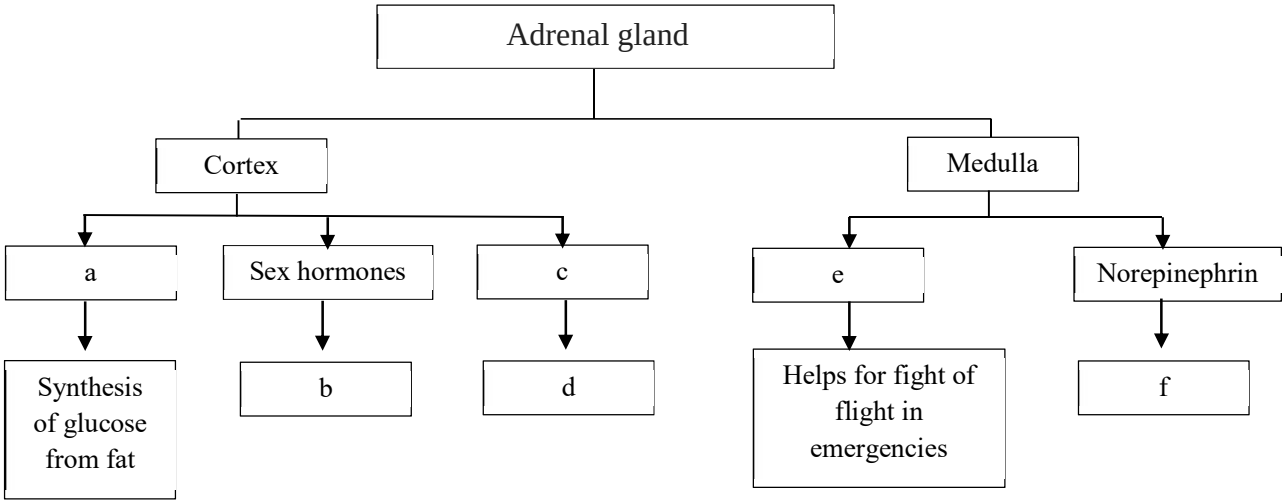
16. Rearrange the items in columns B and C so that they-match with those in column A.

A	B	C
Dwarfism	Low production of oxytocin	Decrease in the reabsorption of water in the kidneys.
Cretinism	Low production of somatotropin	High metabolic rate Emotional imbalance.
Diabetes insipidus	Low production of thyroxine	Mental retardation and stunted growth.
	Low production of vasopressin	4. Stunted growth.

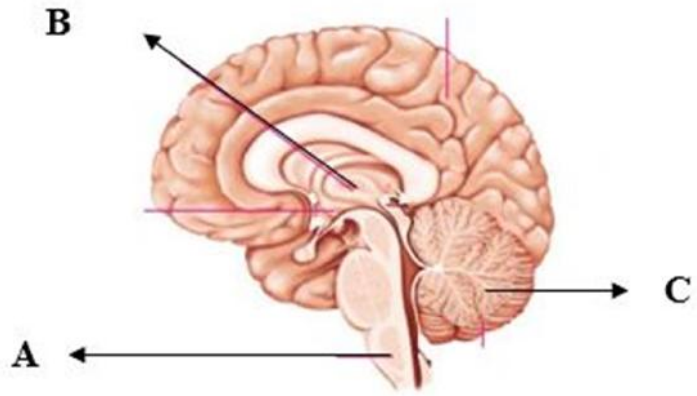
17. Observe the figure and answer the questions.

a) Name A & B shown in the figure.
b) Write the function of **A**
c) How are impulses formed in the **B** ?

18. Complete the illustration.



19. Observe the figure and answer the questions.



a) Nam

b) Write the functions of the parts indicated by 'A', 'B' and 'C'.

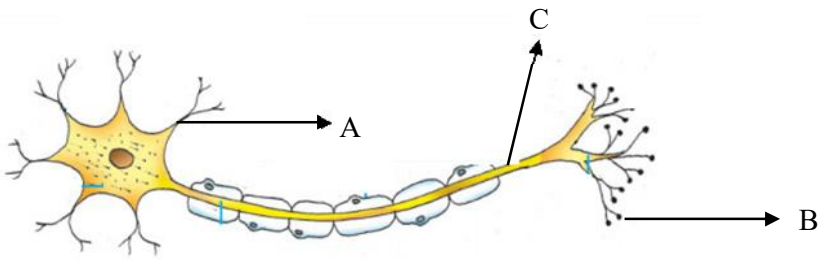
20. A person's fasting blood sugar level (blood taken before breakfast) is given below. Examine it and answer the questions.

190mg/100ml of blood

a. Name his disease.
b. Write the cause of the disease.
c. What are the symptoms of this disease?

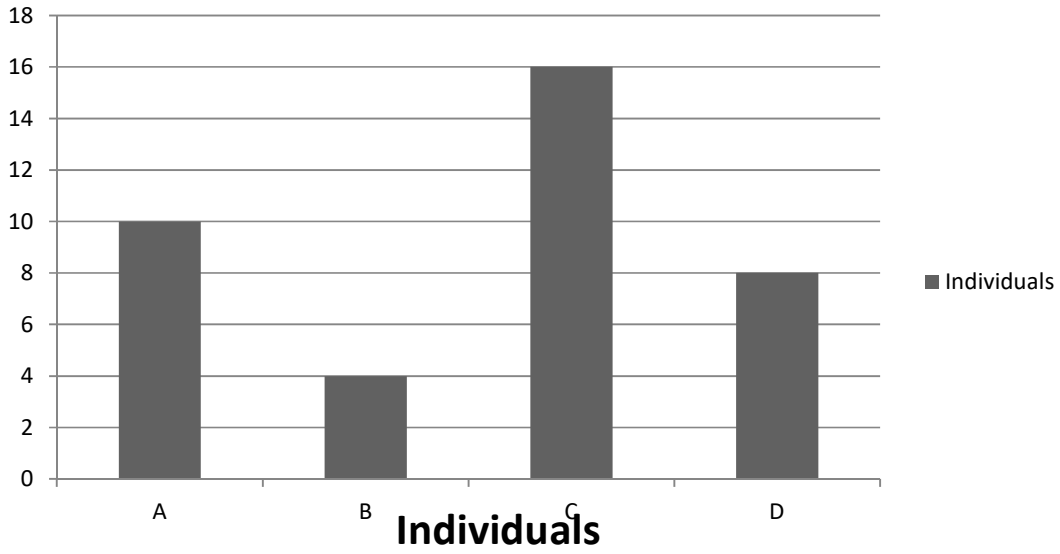
Answer any Two questions from 21 to 23. Each question carries 4 score. (2x4 = 8)

21. . Observe the figure and answer the questions.



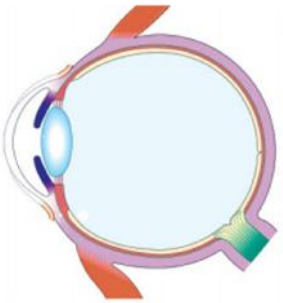
a) What are the functions of myelin sheath?
b) Identify the parts denoted by 'A', 'B' and 'C.
c) Write the functions of the parts denoted by 'A', 'B'and 'C'.

22. Examine the graph and answer the questions



a) Who are the persons whose calcium level in blood is normal?
b) Name the hormone that can bring the calcium level in the blood of C normal. How does that hormone work?
c) In which of the four people does the hormone parathormone work?

23. Copy the diagram and mark the parts described in it.



a) The part that carries impulses from photo receptors to the visual centre in the brain.
b) The part whose size increases or decreases depending on the intensity of light. The layer of the eye ball with photoreceptors: