

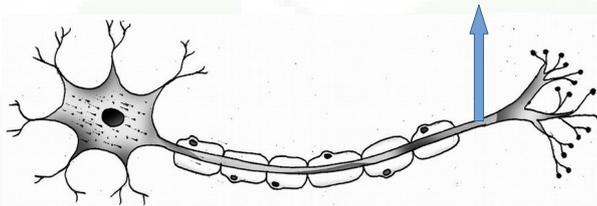


**BIOLOGY**

**MARKS : 40**  
**TIME : 90 mnts**

**Answer any four questions from questions 1 to 6. Each question carries 1 score.**

1. Identify the word pair relationship and fill in the blank.  
Adenine :: Thymine  
Guanine :: .....
2. Read the flow chart carefully. Name the process behind the flow chart  
Stimulus → Receptor → Sensory neuron → Inter neuron → Motor neuron → Muscle
3. Observe the picture carefully. Name the labelled part in the picture.



4. Gene therapy is an example of the boons of science for human existence. How does gene therapy becomes useful to human beings?
5. Write the odd one . Write the common features of others  
( Dwarfism, Cretinism, Acromegaly, Gigantism )
6. Read carefully the parts of ear given below. Identify and write the parts which helps in body balance.  
( Eustachian tube, Vestibule, Cochlea, Semi circular canals )

**Answer all questions from question number 7 to 9. Each question carries 1 score.**

7. Name the endocrine gland which is very active during infancy but constricts as we reach puberty
8. The chromosome number in human being is .....  
( 46, 22 , 44, 23 )
9. Name the technology of testing the arrangements of nucleotides in DNA
10. Ashik met with an accident and he urgently needs blood. After blood test Antigen A, antigen D and antibody b were identified in his blood.
  - a. Name his blood group
  - b. Which of the following blood groups can receive for Ashik  
( Venu A+ve, Amal AB+ve, Subair AB-ve, Anoop A-ve )

**Score- 2**

**Answer any one question from questions 11 to 12. Each question carries 2 score.**

11. Fill in the blanks with suitable words
  - a. The different forms of a gene are known as .....
  - b. The pigment ..... provides colour to our skin
12. Write any two situations in which we use artificial plant hormones

**Answer any three questions from questions 13 to 16. Each question carries 3 score.**

13. School Science club decided to conduct a poster exhibition in relation with National Tuberculosis Eradication Programme. Write the answers of the questions given below which helps the presentation of poster.

- Name pathogen of Tuberculosis
- Write any two symptoms of Tuberculosis
- Name the vaccine which is used to prevent Tuberculosis

14. By giving appropriate heading, classify the following stages in correct order.

- Enzymes in lysosome destroy pathogen.
- Pathogen is trapped in membrane sac
- Expels the digested waste
- Membrane sacs combines with lysosome.

15. Complete the table

Organisms	Pheromones
a	Bombykol
Civet cat	b
c	Muscone

16. Prepare a flow chart showing the experience of taste.

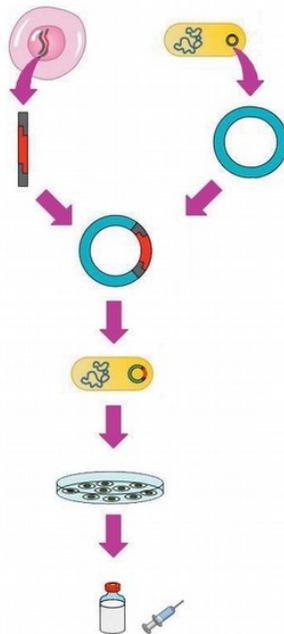
17. Some organisms and their receptors are given below. Make correct pair as per the model.

Model: Insects - Ommatidia

(Planaria, snake, shark, Jacobson's organ, lateral line, eyespot, insect) **(Score 3)**

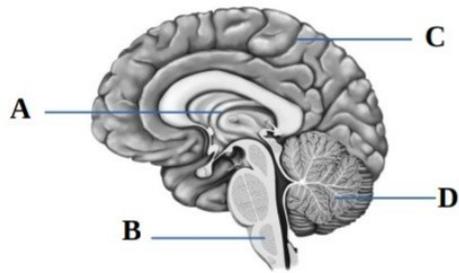
**Answer any two questions from questions 18 to 20. Each question carries 4 score.**

18. Observe the picture and write answers of the questions given below.



- Name the process indicated in this picture
- Write the steps in this process in correct order

19. Observe the figure and answer the following questions



( Diagram need not be drawn )

- Identity and write the name parts A,B,C,D
- Write the function of A,D.

20. Complete the stages of protein synthesis

- mRNA is formed from DNA
- mRNA reaches out of nucleus.
- -----
- -----
- -----

b) Which are the other RNAs involved in protein synthesis

**Answer any one questions from questions 21 to 22. Each question carries 4 score.**

21. Answer the following questions related to filariasis.

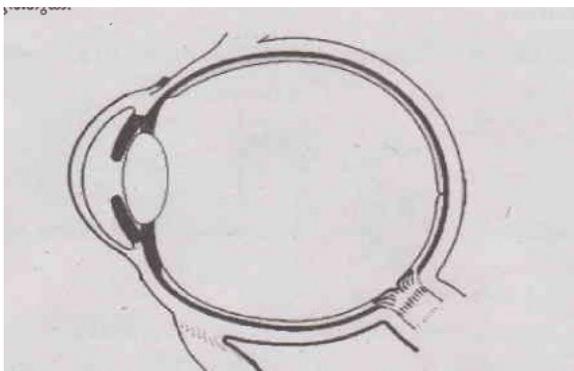
- Name the pathogen.
- Name the vector
- Write any two precautions that control the spread of disease.

22. By giving appropriate heading classify the following processes

- Heart beat becomes normal
- Trachea dilates
- Peristalsis becomes normal
- Glycogen gets converted to glucose
- Saliva secretion decreases
- Pupil constricts

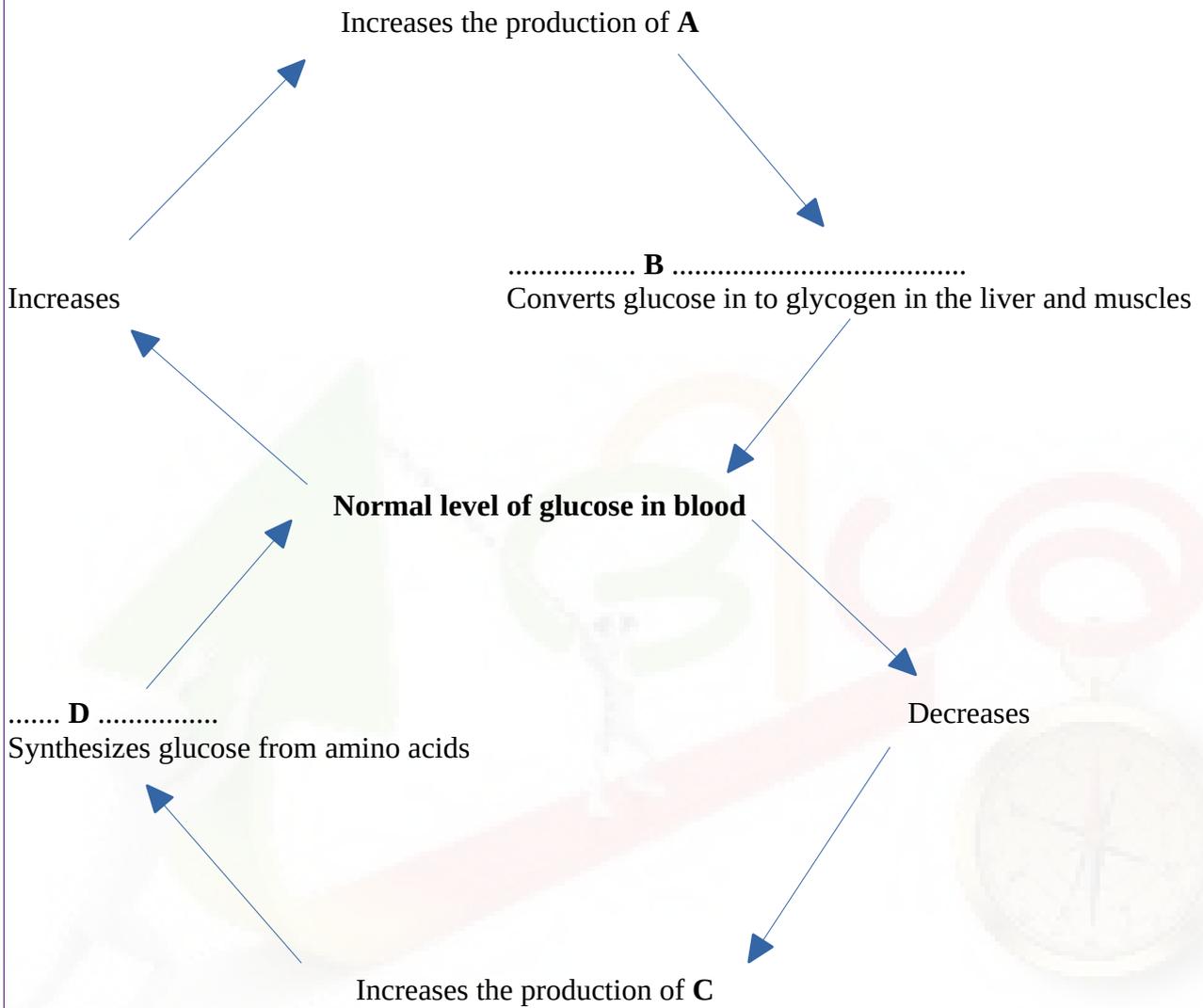
**Answer any one questions from questions 23 to 24. Each question carries 5 score.**

23. Redraw the figure and identify the parts according to the hints and label them.



- Part where impulses are formed.
- Part which regulates the size of pupil
- Part which carries impulses to brain
- Part which allows light in to the eye

24. Analyse the illustration related to the regulation of blood glucose level and write answers to the questions given below.



- Write the process of B & D
- Write the names of hormones A & C
- Write the normal level of glucose in blood.
- Which are the hormones involved in the regulation of normal calcium level in blood.