

VIJAYAPADHAM
KOTTARAKKARA EDUCATIONAL DISTRICT
SSLC PRE MODEL EXAMINATION 2021-22



PM 01 BY 10 E

Time : 1½ hr

class x

Score : 40 marks

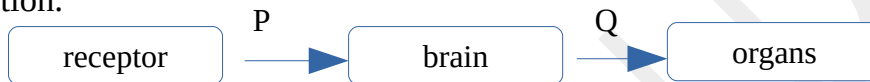
BIOLOGY

Part I

A = Focus area part
B = Non-focus area

A.1 to 6 write any 4 of the following questions(1 mark each). (4 x 1=4)

1.Observe the illustration on impulse transmission and answer the following question.



What kind of nerves P&Q indicates?

2.“There is a possibility of not sensing the taste of food while suffering from common cold”. Is the given statement correct and why?

3. Acromegaly is the condition caused by

4. a, Pick out the odd one from the given box
b, write the reason .

Blight disease, Foot and mouth disease, Quick wilt, Mosaic disease

5. The germs that have crossed the cell wall are prevented from entering through the cell membrane by

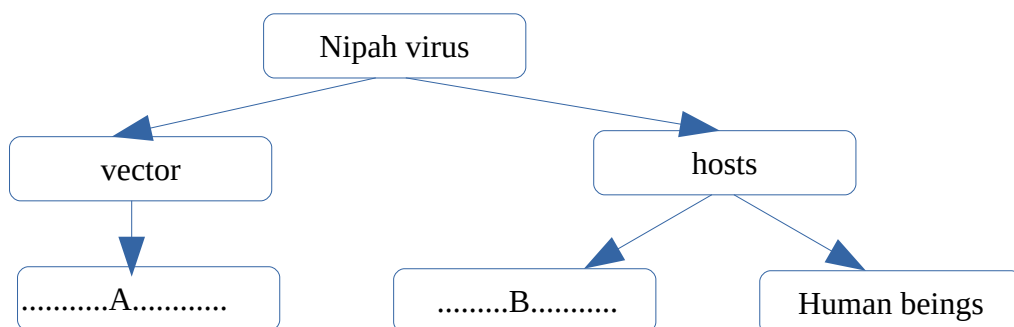
[lignin, cutin, callose, suberin]

6.”Genetic engineering has made a great leap in the treatment of genetic diseases.”
Mention the method of treatment.

B. 7 to 9 write answers of all questions.(1 mark each) (3x1=3)

7. Write the explanation given by Gregor Mendel for the appearance of variations in the offsprings.

8. Complete the flow chart given below



9. Identify the odd one and find out the reason.
(Gibbon, Orangutan, Gorilla, Monkey)

Part II

A. Answer to the following question. (2marks) (1x2=2)

10. Different steps of protein synthesis are given below. Arrange them in the correct order.
- mRNA forms from DNA.
 - tRNA brings different kinds of amino acids to ribosome.
 - mRNA reaches ribosome.
 - Protein is synthesized by adding amino acids.

B. 11 and 12 answer any one of the following. (2 marks) (1x2=2)

11. Answer the following questions related to rhythmic activities of our body.

- Which hormone is related to these rhythmic activities?
- Which gland produces this hormone?

12. Observe the picture and write the answers of the following question.



Identify the disease and write the name of the disease-causing microorganism?

Part III

A. 13 to 16 Answer any three questions. (3 marks each) (3x3=9)

13. Analyse the following statements and make suitable corrections wherever needed.

- Ethylene is used in rubber trees to increase the production of latex.
- Abscisic acid helps in the break down of stored food in the seeds.
- Auxin is also used as a weedicide.

14. A poster got prize in the poster competition in connection with World AIDS Day is given below.

December 1 World AIDS Day



Let us fight
together for the better tomorrow
which is free from the grip of death
caused by AIDS.

- Name the microorganism that causes AIDS.
- Write the conditions that make AIDS fatal.

15."Changes occur in the structure of haemoglobin in the red blood cells. Red blood cells bent like sickle."

- a)Name the disease indicated above.
- b)How does the deformity of RBC affects the body ?

16."Technology developed by Alec Jeffreys is used in forensic test to identify the real culprit."

- a. Name the technology.
- b. Mention its other scopes.

B. Answer the following question. (3 marks) (1x3=3)

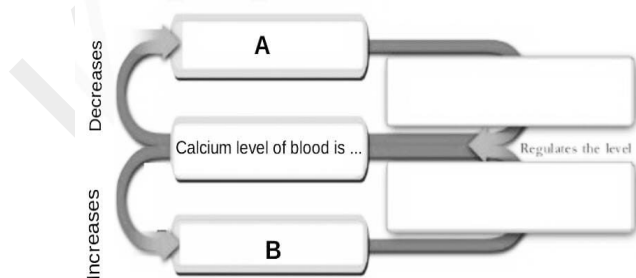
17. Complete the following table.

Organism	Sense organs	Types of receptors
PlanariaA.....	Photoreceptors
House flyB.....	Photoreceptors
.....C.....	Lateral lineD.....
SnakeE.....F.....

Part IV

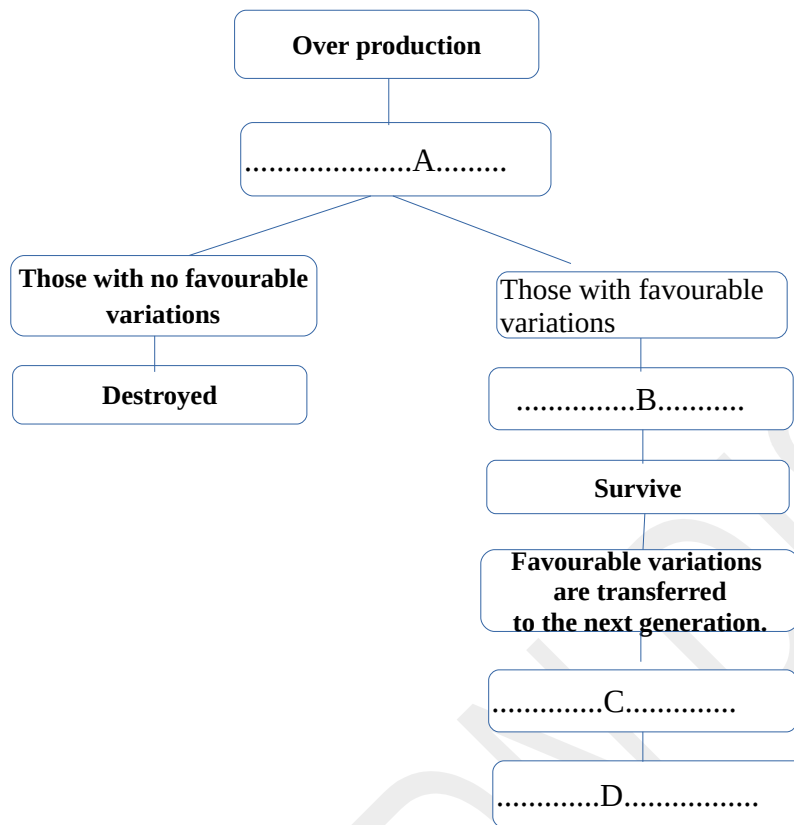
A.18 to 20 answer any two questions.(4 marks) (2x4=8)

18.Illustration based on the regulation of calcium in blood is given below. Observe it carefully and answer the following questions?

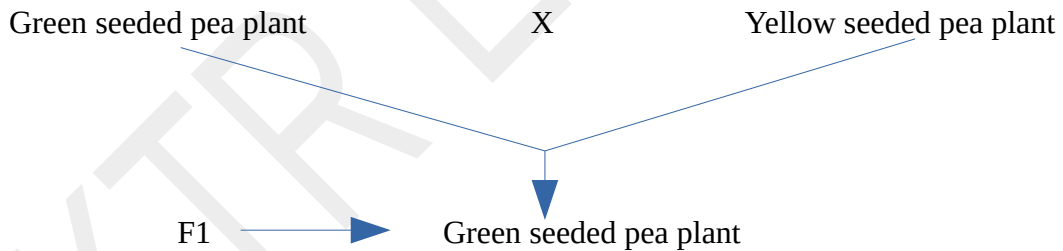


- a) What is the normal rate of calcium in blood?
- b) Identify the hormones labelled as A & B.
- c) Write the functions of A & B in the regulation of calcium in blood.

19. Complete the following flow chart.



20. "A farmer conducted hybridization experiment to develop new variety of pea plant." Observe the illustration related to this experiment and answer the following questions.



- Mention the factors present in the first generation.
- Which are the dominant and recessive traits in the first generation?
- The ratio of the traits in the second generation.

B.21&22 Answer any one of the following. (4 marks) (1x4=4)

21. Arrange the following processes under suitable headings.

- *Trachea expands.
- *Peristalsis increases.
- *Heart beat increases.
- *Convert glycogen to glucose.
- *Production of saliva increases.
- *Pupil constricts.

22. "White blood cells play a significant role in defence."

Write the defence actions of white blood cells.

(Hint: Monocyte : Engulfs and destroys germs.)

Part V

A.23&24 answer any one of the following.(5 marks)

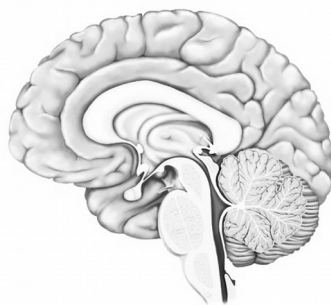
(1x5=5)

23. Redraw the given figure and label the parts using the hints given below.



- a) The layer which has photoreceptors.
- b) The point of maximum visual clarity.
- c) The fluid that give oxygen and nourishment to the eye ball.
- d,The part that regulates the intensity of light.

24.Redraw the given figure in large size and name the following parts and label them correctly.



- a.Largest part of the brain.
- b.Part which coordinate muscular activities.
- c.Part which play a role in the maintenance of homeostasis.
- d.Part which controls heart beat, breathing.
