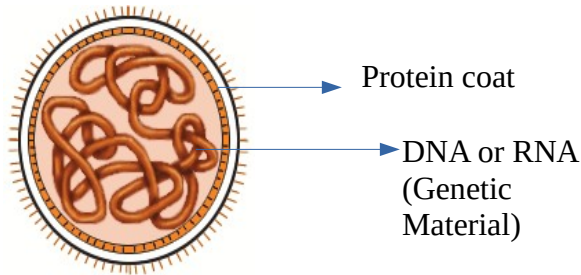


SECOND TERM EVALUATION 2019-20
STANDARD 10 - BIOLOGY

1. Retina :Photo Receptors :: Basilar Membrane : Auditory receptors
- 2.Red Blood Cells
- 3.



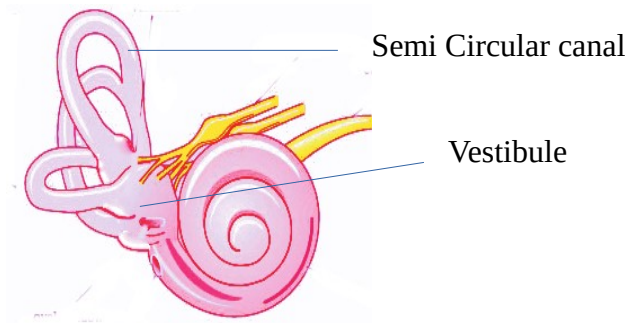
4. a. Anthrax is caused by Bacteria
c.Bud rot of coconut is caused by Fungus
5. a.Melanin
b. Allele
6. Plasmodium -----> Anopheles mosquito...> Man.....> Malaria
7. Chemical Substances such as lignin, cutin, suberin present in the cell provides rigidity to the cell wall, Cell wall prevents the germs from entering through the cell .Acts as resistance coat
- 8.

Neutrophil	Engulfs Pathogens
Basophil	Dilates Blood vessels
B Lymphocyte	Produces antibodies
T Lymphocytes	Destroys cancer cells

9.
 - a. To prove that the people affected by cowpox can escape from the attack of small pox.
The boy who recovered from cow pox was not affected by small pox when he was injected germs of small pox.
 - b. The invention of Vaccination against small pox that eradicated the disease from the world.
10. a. when plants that differ in contrasting traits are hybridised only one trait is expressed while the other remains hidden in the offspring s of the first generation
b. T -Tall , t – Dwarf

11. a. Sickle cell anaemia.
Deformities in the sequencing of amino acids which are building blocks of Haemoglobin due to the defects in genes results in changes in the structure of haemoglobin .That is reason for the change in shape of red blood cells
- b. The oxygen carrying capacity of red Blood cells decreases. The Sickle shaped RBC's get collected in the blood vessels and block the flow of blood in them.
12. a. Melatonin, Pineal Gland
b. Helps to maintain the rhythm of our daily activities.
Controls reproductive activities of organisms that have definite reproductive periods

13.



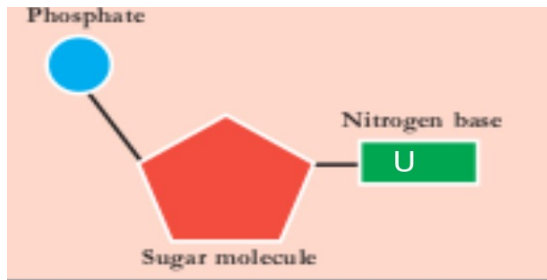
- a. A. Semi Circular canal B.Vestibule
- b. The movement of the endolymph present inside the vestibule and the semi circular canals causes movement of the sensory hair cells and generate impulses. These impulses are transmitted by the vestibular nerves to the cerebellum , and the equilibrium of the body is maintained.
14. a. Thromboplastin
b. Vitamain K
c. The red blood cells and platelets get entangled in the network of fibrin fibres to form the blood clot
15. a.
 - Rh factor or antigen D is present in the cell membrane of RBC. Those who have antigen D are called Rh positive (Rh+) and those who do not have antigen D are called Rh negative (Rh).
 - When unmatched blood is received, the antigen present in the donor's blood and the antibody present in the recipient's blood reacts each other and form a blood clot.
- b. Blood group of the donor and the recipient should match

Persons with communicable diseases should not donate blood

Pregnant women and breast feeding women should not donate blood.

Blood donation can be done once in three months

16. a. Use of antibiotics with out recommendation of a doctor cause side effects.
- Regular use of antibiotics develops immunity in pathogen against antibiotics
 - destroys useful bacteria in the body
 - reduce the quantity of some vitamins in the body
- b. Keratin present in the epidermis of the the skin prevent the entry of germs
Sweat glands in the skin produces sweat .Disinfectants in the sweat destroys germs
Sebum produced by Sebaceous glands of the skin makes the skin oily and water proof.
17. a. Tuberculosis , Mycobacterium tuberculosis
- b. BCG
- c. Loss of body weight, fatigue, persistent cough
18. Aids can not be spread
- by touch, shaking hands, coughing, sneezing etc.
 - through insects like mosquitoes, houseflies etc.
 - by staying together and sharing food.
by using the same toilet.
 - by taking bath in the same pond.
19. a. 1 . 44 +XX 2. 44+XY
- b. Somatic chromosome
- c. X, Y chrosomes of the father determines whether a child is male or female. The child with XX chromosomes will be a girl and the child with XY chromosomes will be a boy.
- 20.
- a. During crossing over, a part of a DNA crosses over to become a part of another DNA. This causes difference in the distribution of distribution of genes. When these chromosomes are transferred to next generation, it causes variation in organisms
- b. When gametes undergo fusion, the combination of the allele changes causing the expression of characteristics in offspring that are different from parents.
- c. Mutations bring about changes in genes that are transmitted over generations leading to variation in characters.
- Adenine – Thymine
Guanine – Cytosine



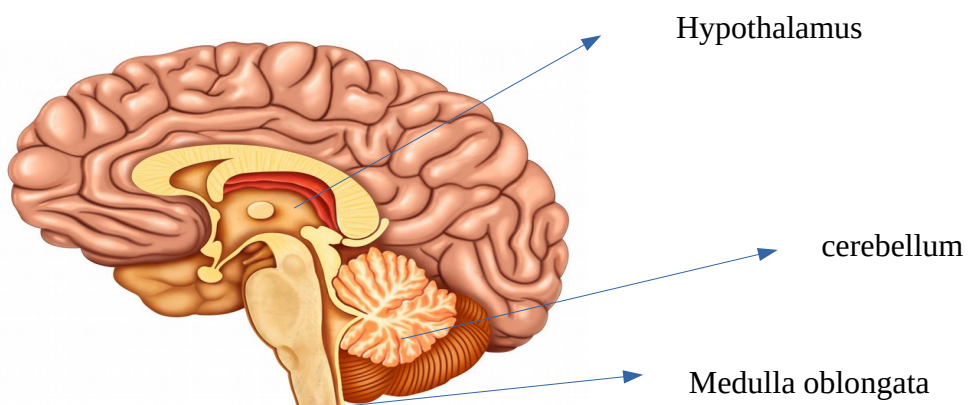
Uracil

21.

	Number of strands	Type of sugar	Nitrogen bases
DNA	2	Deoxy Ribose	ATGC
RNA	1	Ribose	AUGC

- 22.
- Hepatitis
 - Anaemia, Night blindness
 - Leptospirosis
 - Dengue fever
 - Reduce fatty food
 - Do regular exercise
 - Avoid Smoking

23.



- Cerebellum
- Medulla oblongata
- Hypothalamus