SECOND TERMINAL EVALUATION 2017-18
BIOLOGY
Std: X(Eng. Medium) **Score:40**

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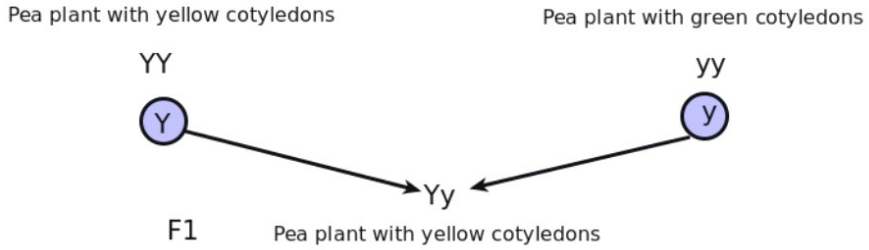
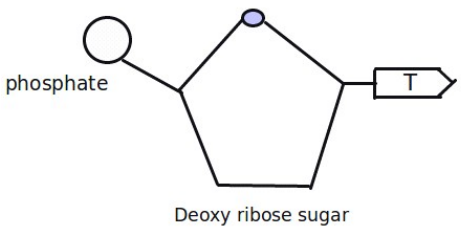
1. **d)** Parathormone-Calcitonin
2. **c)** Typhoid and cholera are spread **<u>through contaminated water.</u>**
3. **c)** Eosinophil
4. **(iii)** a & c are correct
5. **A**-Bacteria **B**-Wilt disease
6. **b)** The technology of testing the arrangement of nucleotides in DNA

(5X1=5)

7. **a)** Sickle cell anaemia **b)** Decreases the oxygen carrying capacity of red blood cells. The RBCs in the shape of sickle aggregate and block the flow of blood through the blood vessels.
8. a) Pea plant with green cotyledons
   b)



9. **a)Callose**-A polysaccharide called callose prevents the entry of germs which have crossed the cell wall, through the cell membrane.
   b) Cuticle-The cuticle, the external layer of the epidermis of leaves defends the attack of microorganisms.
10. **a)** by staying together and sharing food.
    c) by touch, shaking hands etc
    d) by taking bath in the same pond
    e) through insects like mosquitoes and flies
11.



12

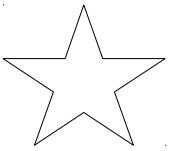
First level Defense	Second level Defense
Prevent the entry of pathogens into the body	Destroy the pathogen by phagocytosis
Sebum and acids present the skin destroy the pathogen	Destroy the pathogen that have entered the body

13. **a)** DNA finger printing/DNA testing
b) DNA of the skin, hair, nail, blood and other body fluids obtained from the place of murder, robbery etc., is compared with the DNA of suspected persons. Thus, the real culprit can be identified from among the suspected persons through this method**.** **(6X2=12)**
14. a) Filariasis b) 1. lifestyle modifications, such as eating a healthier Diet. 2. quitting smoking, and getting more exercise c) Mycobacterium tuberculosis
15. a) No. The antigen B present in the received blood(B group) and antibody 'a' in the recipient's blood(A group) will react each other and form a blood clot b) The presence or absence of an antigen'D' or Rh factor in blood.
16. a) Malaria b) Protozoa- **Plasmodium** **c) 1.** keep our surroundings clean. **2.** Observing Dry day for the eradication of vector mosquitoes
17. **A)** Yes, Some important side effects are: **1.** regular use develops immunity in pathogens against antibiotics **2.** destroys useful bacteria in the body. **3.** reduces the quantity of some vitamins, in the body
B) b) bacterial disease
18. **a)** Sugar and phosphate molecules **b)** Adenine(A)-Thymine(T), Guanine(G)-Cytosine(C) **c)** Since DNA has four kinds of nitrogen bases, DNA has four kinds of nucleotides too
19. **a)** Yes, We can use bacteria for producing insulin through genetic engineering
b) We can modify and create new varieties of plants and animals. Efffective vaccines can be produced. We can produce pharm animals etc.
20. **a)** The vestibular apparatus **b)** The impulses reach the cerebrum through the auditory nerve and hearing is effected. c) The impulses are transmitted by the vestibular nerves to the cerebellum. As a result, the cerebellum enables muscular movements that maintain the equilibrium of the body
(5X3=15)
21. No. mRNA and different kinds of other RNA are present in the cells. There are tRNA (Transfer RNA) that carry amino acids to the ribosome and rRNA

(Ribosomal RNA) that are seen associated with ribosomes. Protein molecule is synthesized by adding amino acids as a result of all these activities.

22 a) The body prepares antibodies to act against the foreign bodies. Such substances used for synthesizing antibodies are called vaccines.
b)MR Vaccine (measles and rubella virus **vaccine** live) is a live virus **vaccine** for immunization against measles (rubeola) and rubella (German measles).
c) For Diphtheria Neutralised Toxins and for Rabies killed germs are used as vaccine.

23 a) Tall Round seeded b) TtRr c) Tall wrinkled seeded and Dwarf Round seeded. The appearance of new combination of characters in offsprings, is due to the independent assortment of each character



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