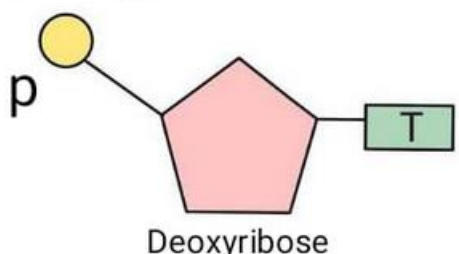


**SSLC MODEL EXAM 2021-
BIOLOGY ANSWER KEY ENGLISH MEDIUM**

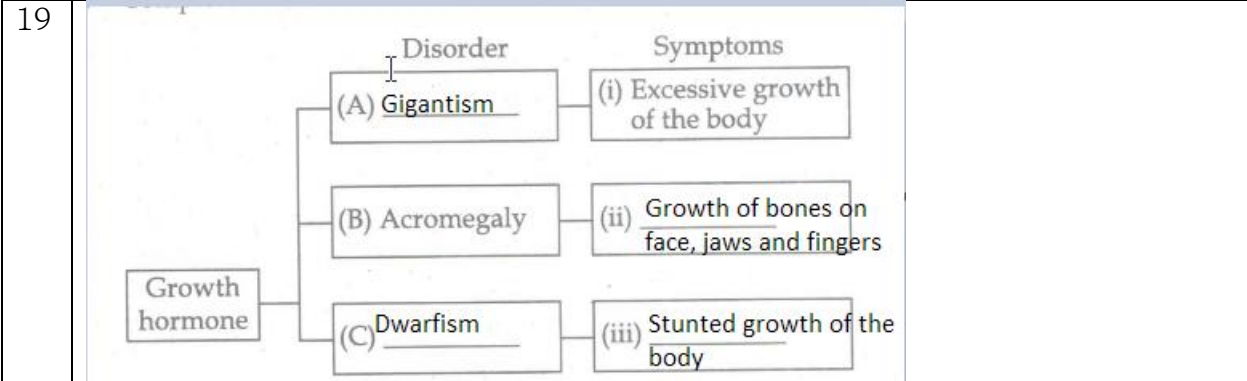
Prepared by www.educationobserver.com

Qn]	Answer Points		
1	Civeton		
2	Blindspot		
3	Sensory Nerve		
4	A. Phosphate Molecule B. Sugar Molecule		
5	Chemical Evolution Theory		
6	Restriction endo nuclease		
7	Ethylene		
8	Plasmodium -Anopheles Mosquito		
9	Keratin		
10	Interferons		
11	a. Alzheimer's Disease b. Accumulation of an insoluble protein in the brain, Neurons get destroyed		
12	a. A – Rod Cell B-Cone Cell b. Rhodopsin Photopsin/ Iodopsin		
13	 <p style="text-align: center;">Deoxyribose</p>		
14	a. DNA finger printing b. Just like the difference in the finger print of each person, the arrangement of nucleotides in each person also differs. Hence this technology is also called DNA finger printing		
15	A. Disease	B. Cause	C. Symptoms
	Night blindness	Deficiency of Vitamin A	Cannot see clearly in dim light
	Colour blindness	Defect of cone cells	Cannot distinguish green and red colours

16 Yes, Vaccines Act as antigens that stimulate the defense mechanism of the body. Antibodies are formed in the body against them. These antibodies are retained in the body which in future protects the body from the pathogen responsible for the same disease.

17. a. A. Inner Medulla of adrenal gland
 B. Outer Cortex of adrenal gland
 b. Epinephrine(Adrenaline), Norepinephrine (Noradrenaline)

18. a. Theory of Natural Selection
 b. Charles Darwin




20	Sympathetic system	Parasympathetic system
	<ul style="list-style-type: none"> Heart beat increases Peristalsis slows down 	<ul style="list-style-type: none"> Trachea contracts Production of saliva increases

21. a. AB
 b. If the blood group is incompatible, the antigen present in the donar's blood and the antibody present in the recipient's blood will react with each other, that will lead to blood clots

22

	X	X
X	(a) XX (i) Female	(b) XX (ii) Female
Y	(c) XY (iii) Male	(d) XY (iv) Male

23	<table border="1"> <thead> <tr> <th data-bbox="285 222 537 296">Parts of Brain</th> <th data-bbox="537 222 1414 296">Functions</th> </tr> </thead> <tbody> <tr> <td data-bbox="285 296 537 464">Cerebrum</td> <td data-bbox="537 296 1414 464"> <ul style="list-style-type: none"> • Centre of thought, intelligence, memory and imaginations. • evokes sensations. • controls voluntary movements. </td> </tr> <tr> <td data-bbox="285 464 537 569">Cerebellum</td> <td data-bbox="537 464 1414 569"> <ul style="list-style-type: none"> • Coordinates muscular actions. • maintains equilibrium of the body. </td> </tr> <tr> <td data-bbox="285 569 537 657">Medulla oblongata</td> <td data-bbox="537 569 1414 657"> <ul style="list-style-type: none"> • Controls involuntary actions like heart beat, breathing etc. </td> </tr> </tbody> </table>	Parts of Brain	Functions	Cerebrum	<ul style="list-style-type: none"> • Centre of thought, intelligence, memory and imaginations. • evokes sensations. • controls voluntary movements. 	Cerebellum	<ul style="list-style-type: none"> • Coordinates muscular actions. • maintains equilibrium of the body. 	Medulla oblongata	<ul style="list-style-type: none"> • Controls involuntary actions like heart beat, breathing etc.
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24	<p>a. Cancer b. Environmental factors, smoking, radiations, virus, hereditary factors c. As recovery from this disease is difficult if the disease becomes severe</p>								
25	<ul style="list-style-type: none"> • Aromatic particles enter the nostrils through inhaled air (3) • These aromatic particles dissolve in the mucus inside the nostrils. • Stimulate the olfactory receptors • Generate impulses • Impulses reach the brain through the olfactory nerve • We experience smell 								
26	<p>HIV Spread Situations (Any 2)</p> <ul style="list-style-type: none"> • Sexual contact with HIV infected person. • HIV infected mother to the foetus. • By sharing needle and syringe contaminated with HIV components. • The reception of blood and organs contaminated with HIV <p>Do not Spread Situations(Any 1)</p> <ul style="list-style-type: none"> • 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 								
27	<p>a. Phagocytosis b. Monocytes and Neutrophils c. Engulfs pathogen in the membrane sac</p>								
28	<p>Sound Waves → Pinna → Auditory Canal → Tympanum → Ear Ossicles → Oval window → Cochlea → Hairy Cells → Impulse → Auditory Nerve → Cerebrum → Sense of Hearing</p>								
29	<p>a. No, they work only against bacterial diseases. b. <ul style="list-style-type: none"> • Regular uses of antibiotics develop immunity in pathogen against antibiotics. • Destroy useful bacteria in the body. • Reduces the quantity of some vitamins in the body </p>								
30	<p>a. 9 – 11 mg/100ml b. A) Calcitonin B) Parathormone</p>								

	<p>c. 1. Prevent the process of Mixing of calcium from bone to blood. 2. Stores the excess calcium from blood to bone.</p>
31	<p>Homo erectus – Ability to stand erect Homo habilis – Made weapons from stones and bone pieces Ardipithecus ramidus – Most primitive member of the human race</p>
32	<p>a. Action of genes b. A) Ribosomes B) m- RNA (Messenger RNA) c. m-RNA carries information from DNA and reaches ribosomes and controls protein synthesis</p>
33	 <p>a. Dendrite b. Axon c. Synaptic knob</p>
34	<p>a. A and D b. B c. Reason - Decreased production of insulin due to the destruction of beta cells. The inability of cells to utilize the insulin produced d. Symptoms – increased appetite, thirst, frequent urination</p>
35	<p>a. A – Tuberculosis B- Hemophilia b. by identifying and injecting the deficient protein c. Mycobacterium tuberculosis d. When the patient speaks, coughs or sneezes the pathogen spread into the air and thereby affect nearby people</p>
36	<p>a. A)-Cornea B)-Iris C)-Retina D) -Optic nerve b. Cornea refracts light rays to focus on the retina Optic nerve transmits impulses from photoreceptors to the visual centre in the brain</p>