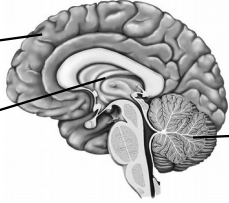


**SSLC Evaluation March/April 2022 BIOLOGY**

Qn	Answer Key / Hints (English medium) By Rasheed Odakkal, 9846626323, GVHSS Kondotty	Score Distr	Total Scor								
1	Cone cell.	1									
2	b. <u>Amino acids</u>	1									
3	22+Y	1									
4	Ripening of leaves and fruits : Ethylene.	1									
5	B-ve	1									
6	b. Plasmid	1	4								
7	Eye spot.	1									
8	b. Heartbeat increases.	1									
9	i. Bacteria ii. Leptospira.	1	3								
10	a. Gene therapy.	1									
	b. Genes that are responsible for diseases are removed and normal functional genes are inserted in their place.	1	2								
11	a. i. Cercopithecoidea.	1	2								
	b. ii. Developed brain, freely movable hands.	1+1	2								
12	a. 44 b. Female, because XX are the sex chromosomes of females.	1									
13	Cornea – The projected transparent anterior part.. - Refracts light rays to the retina. Pupil - The aperture seen at the centre of iris- Regulates the amount of light falling... Yellow spot – The part of retina where plenty of... -	1 1 1	3								
14	a. Pheromones.	1									
	b. Civetone, Muscone(musk), Bombycol (any 2)	1	3								
	c. Help in attracting mates, informing about food, determining the path of travel, signalling dangers, help honey bees and termites to live in colonies. (any 2)	1									
15	a. i. Cell wall .	1									
	b. Lignin, Cutine, Suberin (any 2)	1	3								
	c. Callose, a polysaccharide, prevents germs.	1									
16	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Tuberculosis</u></th> <th style="text-align: center;"><u>Malaria</u></th> </tr> </thead> <tbody> <tr> <td>- Spread through air.</td> <td>- High fever with shivering and profuse sweating</td> </tr> <tr> <td>- Bacteria is the pathogen.</td> <td>- Spread through anopheles mosquito.</td> </tr> <tr> <td>- Loss of body weight, fatigue....</td> <td>- Protozoa is the pathogen.</td> </tr> </tbody> </table>	<u>Tuberculosis</u>	<u>Malaria</u>	- Spread through air.	- High fever with shivering and profuse sweating	- Bacteria is the pathogen.	- Spread through anopheles mosquito.	- Loss of body weight, fatigue....	- Protozoa is the pathogen.	3	3
<u>Tuberculosis</u>	<u>Malaria</u>										
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- Loss of body weight, fatigue....	- Protozoa is the pathogen.										
17	a. i. Myelin sheath/Schwann cells.	1									
	b. Provide nutrients and oxygen to the axon, accelerate impulse, act as an electric insulator, protects the axon from external shocks.. (any 2)	2	3								
18	a. Sickle cell anaemia.	1									
	b. The defects in genes cause deformities in the sequencing of amino acids which are the building blocks of haemoglobin.	1									
	c. The oxygen carrying capacity of red blood cells decreases. The sickle shaped RBCs get collected in the blood vessels and block the flow of blood in them.	2	4								
19	a. i. <b>r</b> ii. <b>Rr</b> iii. <b>Rr</b> iv. <b>rr</b>	2									
	b. Round.	1									
	c. During gamete formation the factors that determine a particular character segregate without getting mixed.	1	4								
20	a. Theory of Natural Selection / Darwinism.	1									
	b. vi. Over production. iii. Struggle for existence										
	v. Those with no favourable variations are destroyed and survival of others.										
	iv. Favourable variations are transferred to the next generation.										
	i. Accumulation of variations inherited through generations.	3	4								
	ii. Origin of new species.										
21	a. Aqueous fluid. b. Supply nutrients and oxygen to tissues.										
	c. Glaucoma. d. Through laser surgery.	1each									
22	a. X= Thromboplastin	1									
	b. Tissues and platelets at the site of wound degenerate to form thromboplastin.	1									

	<p>c. * Fibrinogen <math>\xrightarrow{\text{Thrombin}}</math> Fibrin fibres.  * The red blood cells and platelets get entangled in the network of fibrin fibres to form the blood clot.</p>	2	4
23	<p>a. For redrawing:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>ii. Cerebrum</p> <p>iii. Thalamus</p> </div>  <div style="text-align: center;"> <p>i. Cerebellum</p> </div> </div>	1	
	<p>b. X= Medulla oblongata.  Controls involuntary actions like heartbeat, breathing etc..</p>	1	5
24	<p>a. X= Insulin, Y=Glucagon.</p>	1	
	<p>b. Pancreas.</p>	1	
	<p>c. Diabetes mellitus.</p>	1	
	<p>d. Increased appetite and thirst and frequent urination.</p>	1	
	<p>e. Synthesizes glucose from amino acids.</p>	1	5