Second Terminal Evaluation 2024-25 BIOLOGY

Qn	Answer Key (English medium)	
1 3 4	Callose. 2. Virus. The defect in genes. Deformities in the sequencing of amino acids of haemoglobin. b). Gene mapping. 5. Keratin. 6. Adenine-Thymine.	**5x1**
7 8 9 10 11 12 13	a). Blood does not clot due to the absence of one of the clotting proteins by the defect in gene. b). Filarial worms in the lymph ducts, obstruct the flow of lymph. A. Used for cutting genes. B. Ligase. C. Genetic glue. D. Plasmid (Circular bacterial DNA) a).Mutation. b). Defects in the duplication of DNA / Certain chemicals / Radiations. (any2) a). Monocytes : Engulfs and destroys germs b). Eosinophil : Synthesises chemicals required for inflammatory responses. c). Basophil : Stimulates other white blood cells. d). Platelets : Helps in blood clotting. a). X- Spleen, Y- Lymph nodes. b). Lymphocytes in the lymph destroy disease causing bacteria in lymph nodes and spleen. A-Somatic chromosomes B-Sex chromosomes. C- XX D- XY a). X- Hormone, Y- Receptor. b). The enzymes in the cells become activated.	**6x2**
14 15 16 17 18 19 20	a). Rat fever/Leptospirosis. Leptospira/Bacteria. b) Toxins produced by leptospira damage the blood capillaries. c) Severe fever/ Headache/ Muscle pain/ Redness in eyes. (any2) a). Inflammatory response. b). Blood flow increases and more WBCs reach there. They can come out from blood vessels as its pores enlarge. c).The enzymes in the lysosome destroy pathogens. a). (i)- T (ii)- t b). Tt tt T t t Tt (tall) tt (dwarf) a). Tuberculosis. Mycobacterium tuberculosis. b). Lungs, bone, joints, brain, kidney (any2) c). Loss of body weight/ Fatigue/ Persistent cough (any2) a). X- A+ve, Y- B-ve. b). No, the antigen in the donor's blood react with antibody in the recipient, resulting blood clot. c). Antigens on the surface of RBC, Antibodies in blood plasma. a). X- Radial muscles. Y- Circular muscles. b). Figure A in dim light, Figure B in bright light. c). In intense light, circular muscles contract and radial muscles relax. a). Thalamus b). Medulla oblongata	**5x3**
21 22 23 	a). Vaccines are the substances used for artificial immunization. b). Both the breast milk and vaccines provide immunity to babies. c). Alive or dead or neutralised germs, cellular parts and their neutralised toxins. These act as antigens that stimulate to form antibodies, which retained in the body. a). Diabetes - Deficiency or malfunctioning of insulin. Fatty Liver - Deposition of excess fat. Heart attack - Deposition of fat in coronary arteries b). AIDS. Reduced immunity causes the action of any pathogen. a). Protein synthesis / Action of genes. b). A- DNA, B- mRNA c).-DNA unwinds and mRNA forms. - mRNA come outside the nucleus and reaches ribosomes - tRNA brings amino acids to ribosomes - Based on the information from mRNA protein is synthesized by adding amino acids	**2x4**
	Prepared by **Rasheed Odakkal**, GVHSS Kondotty	**(40)**