



Date:13/06/24

MONTHLY TEST-01 (2024-25)

Max marks:20

Grade:XII

BIOLOGY(044)

Time:50min

General Instructions:

1. There are 9 questions in the question paper.
All questions are compulsory.

Qn. No	SECTION A	Marks allocated
1	The clinical test that is used for diagnosis of typhoid is: d. Widal	1
2	Many diseases can be diagnosed by observing the symptoms in the patient. Which group of symptoms are indicative of pneumonia? a. Difficulty in respiration, fever, chills, cough, headache	1
3	'Smack' is a drug obtained from the: a. latex of Papaver somniferum	1

4	D	1
5	SECTION B Where are B-cells and T-cells formed? How do they differ from each other?	2

	<p>B-cell and T-cell both formed in the bone marrow. But, B-cell gets matured in bone marrow and T-cell gets matured in Thymus.</p> <p>B-cells produce antibodies, while T-cells helps in killing the pathogen and helping other immune cell to fight infection.</p>	
6	<p>Why is an antibody molecule represented as H₂L₂?</p> <p>Each antibody molecule has four peptide chains. Two chains are small and are called light chains. Another two chains are long and are called heavy chains.</p>	3
7	<p>What are the three types of ecological pyramids? Explain?</p> <p>An ecological pyramid is the graphical representation of the biomass at each trophic level for a particular ecosystem. In the ecological pyramid, there are 3 levels of producers, consumers, and decomposers.</p> <p>The ecological pyramid is of three types :</p> <ol style="list-style-type: none"> 1. Pyramid of number - It shows the population of each chain graphically. These are the upright pyramid. 2. Pyramid of Biomass - It is the relation between the biomass at each trophic level. These are inverted pyramids. 3. Pyramid of energy - Its shows the productivity of the biomass at each trophic level. 	3
8	<p>What is foetal ejection reflex? How does it cause parturition?</p> <p>Parturition is the process of delivery of the foetus. It is also called as childbirth. Foetal ejection reflex are the mild uterine contractions generated by placenta when the foetus is fully developed. This reflex is seen during the time of parturition. The parturition give signals</p>	3

	<p>and the placenta induces mild uterine contractions. This triggers release of oxytocin from the maternal pituitary gland.</p>	
9	<p style="text-align: center;">SECTION C</p> <p>What is cancer? How is a cancer cell different from the normal cell? How do normal cells attain cancerous nature?</p> <p>An abnormal and uncontrolled division of cells is termed as Cancer. The Cancerous cells are different from the normal cells in the following ways.</p> <p>Cancer Cells</p> <p>Normal Cells</p> <ol style="list-style-type: none"> 1. Cancer cells divide in an uncontrolled manner. 1. Normal cells divide in a controlled manner. 2. The cells do not show contact inhibition 2. The cells show contact inhibition. 3. Life span is indefinite 3. Life span is definite. <p>In our body the growth and differentiation of cells is highly controlled and regulated. The normal cells show a property called contact inhibition. The surrounding cells inhibit uncontrolled growth and division of cells. The normal cells lose this property and become cancerous cells giving rise to masses of cells called tumors. Transformation of normal cells into cancerous cells is induced by some physical chemical and biological agents carcinogens.</p>	5