1604N193

Candidate's Seat No : _____

M.Sc Semester-2 Examination

407

Zoology

April-2024

Time : 2-30 Hours] [Max. Marks : 70

Q-I	1	Write a note on spontaneous mutations.	(14)
	2	What are jumping genes? Discuss.	
		OR	
	1	Describe the positive control of *lac* operon.	
	2	Explain the maternal effect with an example of a water snail coiling phenotype.	
Q-II	1	Write a note on aneuploidy.	(14)
	2	Write on: Unbalanced chromosome aberrations.	
		OR	
	1	Write a note on mechanism of sex determination.	
	2	What are multifactorial disorders? Explain with an example.	
Q-III	1	Describe "Autoimmunity" in brief.	(14)
	2	Give a note on humoral immune response.	
		OR	
	1	Explain briefly: Types of immunoglobulins.	
	2	Discuss allergy reaction in detail.	
Q-IV	1	Explain the latex agglutination test.	(14)
	2	Give a note on clinical applications of ELISA.	
		OR	
	1	Discuss the role of graft in transplantation.	
	2	Describe "Immunoelectrophoresis" in brief.	
Q-V		**Answer any SEVEN out of TWELVE.**	
	1	What is satellite DNA?	(14)
	2	Group III introns are also known as _____ and _____.	02
	3	Within the *lac* operon, the _____ protein is encoded by the *lacY* gene and the _____ enzyme is encoded by the *lacZ* gene.	02
	4	Differentiate between trisomy and triploidy.	02
	5	Give an example of euploidy in animal kingdom.	02
	6	Which chromosome aberrations can be observed in live births in humans?	02
	7	Add a note on "MHC".	02
	8	Mention the functions of macrophages.	02
	9	Mention the role of haptens.	02
	10	Define: Phenomenon of "Precipitin ring".	02
	11	What is MLR testing?	02
	12	Define: Familial grafting.	02

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