

Paper Code		2025 (1 st -A)			
Number: 4462		INTERMEDIATE PART-II (12 th Class)		Roll No:	
BIOLOGY PAPER-II GROUP-II					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	The mechanism which eliminate nitrogenous waste is called:	Excretion	Thermoregulation	Osmoregulation	Hydrogenation
2	The active part of wood is called:	Hard wood	Soft wood	Heart wood	Sap wood
3	Which animal has hydrostatic skeleton?	Human	Snake	Sea anemone	Pigeon
4	If the biorhythms are of 365 days, these are called as:	Diurnal rhythms	Circannual rhythms	Circadian rhythms	Triurnal rhythms
5	Pain receptors are nearly _____ times more abundant than cold receptors.	27	10	37	47
6	Placenta is characteristic of:	Reptiles	Birds	Mammals	Insects
7	During gastrulation, the blastoderm split into two layers, the upper layer is called:	Epiblast	Hypoblast	Thecoblast	Endoderm
8	The particular array of chromosomes that an individual possesses is called:	Phenotype	Sciotype	Genotype	Karyotype
9	Replication always proceed in direction:	5' → 3'	3' → 5'	6' → 3'	3' → 6'
10	In humans, the average cell cycle is about:	30 min	9 hrs	24 hrs	48 hrs
11	The phenotypic ratio of monohybrid cross is:	1 : 2 : 1	3 : 1	9 : 3 : 3 : 1	1 : 0
12	Which of these is incorrectly matched?	Protoplast – plant cell engineering	RFLPS – DNA fingerprinting	DNA – Polymerase	DNA ligase – mapping human chromosome
13	Plasmids were discovered by investigators studying the sex life of bacterium called:	Escherichia coli	Salmonella	Pseudomonas	Plasmodium
14	The prokaryotes may have arisen more than _____ years ago.	6.5 million	2.5 million	4.5 million	3.5 million
15	Combination of many food chains is called:	Food web	Producers	Consumers	Decomposers
16	Fresh water ecosystem covers less than _____ % of aquatic ecosystem.	3	7	1	5
17	The soil of temperate deciduous forest is of colour.	Brown	Grey	Green	Grayish brown

2025 (1 st -A)		
INTERMEDIATE PART-II (12 th Class)		Roll No:
BIOLOGY PAPER-II GROUP-II		
TIME ALLOWED: 2.40 Hours	SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.		

SECTION-I

2. Attempt any eight parts.	8 × 2 = 16
(i) How do marine fishes adopt their osmoregulatory mechanism to survive in a hypertonic environment?	
(ii) Human nephrons have association of three types of capillary beds. Give their names and location in the kidney.	
(iii) Why leaves are said to be excretophores?	
(iv) How is callus formed in plants?	
(v) What is the role of calcium ions in muscle contraction?	
(vi) Differentiate between exoskeleton and endoskeleton.	
(vii) How do Sertoli cells contribute in spermatogenesis?	
(viii) Name the hormones secreted by placenta.	
(ix) Which type of life is present in the Profundal zone of a fresh water lake?	
(x) Define productivity of an ecosystem.	
(xi) Why forests are called environmental buffers?	
(xii) How does deforestation contribute to climate change?	
3. Attempt any eight parts.	8 × 2 = 16
(i) What is Chlorosis? Write its cause.	
(ii) How ethene is commercially important?	
(iii) Differentiate between kinesis and taxes.	
(iv) Define Co-dominance. Give an example.	
(v) How would you define polygenic trait? Give an example.	
(vi) What are multifactorial traits?	
(vii) How restriction endonucleases are important for bacteria?	
(viii) What is vortex method to inject genes into eggs?	
(ix) What are somaclonal variations?	
(x) How ecosystem can be defined?	
(xi) Differentiate between primary succession and secondary succession.	
(xii) What is mycorrhiza?	
4. Attempt any six parts.	6 × 2 = 12
(i) Define aging. Give its symptoms.	
(ii) What are teratogens? Give example.	
(iii) Give main components of a DNA nucleotide.	
(iv) How would you define transformation?	
(v) Define Okazaki fragments. Where they are found?	
(vi) Why interphase is called resting phase?	
(vii) How anaphase of mitosis differs from anaphase-I of meiosis-I?	
(viii) Define Neo-Darwinism.	
(ix) Differentiate between homologous organs and vestigial organs.	

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SECTION-II

NOTE: Attempt any three questions.	3 × 8 = 24
5.(a) Describe major homeostatic functions of liver.	4
(b) How does cytokinesis occur in animal cells? In which way does it differ from that in plant cells?	4
6.(a) What are joints? Explain types of joints on the basis of structure.	4
(b) Write a comprehensive account on ecological niche	4
7.(a) What is feedback mechanism? Elaborate with an example.	4
(b) Write a detailed note on evolution of prokaryotes.	4
8.(a) Write causes and control of Sexually Transmitted Diseases(STD).	4
(b) What is crossing over? Write its importance and mechanism.	4
9.(a) Give a comprehensive note on embryonic induction and its role in development.	4
(b) Discuss gene sequencing with its significance.	4