

Section A				
1)	The breakdown of pyruvate to release energy occurs in the: (a) Cytoplasm (b) Mitochondria (c) Nucleus (d) Ribosome			(0.5)
2)	Which of the following carries hormones in the human body? (a) Blood (b) Lymph (c) Nerves (d) Enzymes			(0.5)
3)	Which plant hormone promotes cell elongation? (a) Auxin (b) ABA (c) Cytokinin (d) Ethylene			(0.5)
4)	Product of sexual reproduction is (a) Clone (b) Offspring (c) Progeny (d) Colony			(0.5)
5)	A cross between TT and tt gives all tall plants in F1. This shows: (a) Variation (b) Dominance (c) Mutation (d) Evolution			(0.5)
6)	The main decomposers in ecosystem are: (a) Bacteria & fungi (b) Plants (c) Herbivores (d) Carnivores			(0.5)
7)	Which vessel carries deoxygenated blood to the lungs? (a) Pulmonary artery (b) Pulmonary vein (c) Aorta (d) Vena cava			(0.5)
8)	Dialysis works upon the basic principle of (a) Osmosis (b) Diffusion (c) Active Transport (d) Passive Transport			(0.5)
9)	Which of the following is a biodegradable waste? (a) Plastic bags (b) Leather belt (c) Glass bottles (d) Aluminum foil			(0.5)
10)	Error during DNA copying may lead to: (a) Variation (b) Replication (c) Duplication (d) Translation			(0.5)
11)	Assertion: Auxin accumulates on the shaded side of a plant. Reason: This causes the plant to bend towards light. (a) A & R correct, R explains A (b) A & R correct, R doesn't explain A (c) A true, R false (d) A false, R true			(0.5)
12)	Assertion: Sex of a baby is determined by the father. Reason: Male gametes contain either X or Y chromosome. (a) A & R correct, R explains A (b) A & R correct, R doesn't explain A (c) A true, R false (d) A false, R true			(0.5)
Section B				
13)	State two differences between arteries and veins.			(2)
14)	Why are food chains limited to 4-5 trophic level?			(2)
15)	How the process of ingestion is different in <i>Amoeba</i> and <i>Paramecium</i> ?			(2)
16)	Why sexual mode of reproduction is considered as advance mode of reproduction over asexual mode of reproduction?			(2)
Section C				
17)	Explain mechanism of opening and closing of stomata. Support your answer with the help of a well labelled diagram			(3)
18)	Work out with the genotypic and phenotypic ratio of monohybrid cross where a homozygous tall plant having genotype TT is crossed with a homozygous dwarf plant having genotype tt.			(3)

19)	What is pollination? Explain two different types of pollination.	(3)
20)	What are methods of contraception? Explain any two methods of contraception.	(3)
Section D		
21)	Rahul touched a hot pan and removed his hand immediately. He felt burning sensation after some time of removing his hand. Answer the following:	
	i) Trace the path of flow of impulse in this action.	(1)
	ii) Name the nerves involved in the flow of impulse OR State the components of nervous system associated with this action	(1)
	iii) Why did Rahul felt pain after some time of removing his hand.	(2)
Section E		
22)	How locomotion is different from movement? Give a brief account on plant movements along with examples.	(5)
23)	What do you mean by double circuit circulation? Explain the flow of blood through human heart.	(5)
24)	Describe different part of flower-Reproductive Organ of angiosperms.	(5)
25)	Why producers occupy first trophic level in a food chain? Illustrate your answer by constructing a terrestrial food chain of four trophic level. Also explain 10% law in this food chain.	(5)