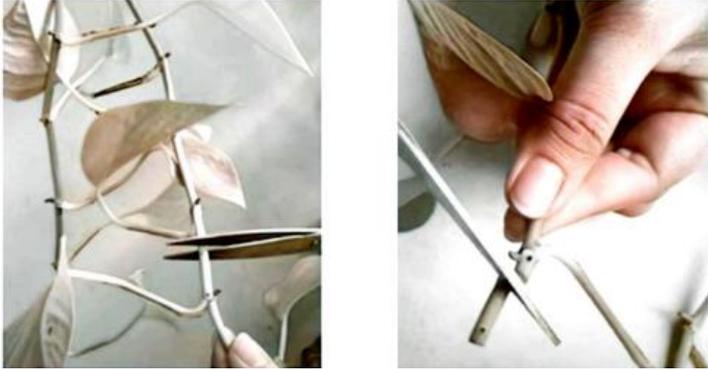




5.	Assertion (A) : Accumulation of harmful chemicals is maximum in the organisms at the highest trophic level of a food chain. Reason (R) : Harmful chemicals are sprayed on the crops to protect them from diseases and pests.	
6.	Assertion : Dominant allele is an allele whose phenotype expresses even in the presence of another allele of that gene. Reason : It is represented by a capital letter, e.g. T.	
7.	<p><b>CASE STUDY:</b> An all India lockdown was announced throughout the country in March 2020 to control the spread of Corona virus. During the lockdown period, Megha developed an interest in gardening and successfully propagated several money plants through cutting.</p>  <p>a) Which part of money plant did Megha use to propagate money plant? What name is given to such type of methods?</p> <p>b) "Grafting is a common method of obtaining a superior plant from two different plants". Explain.</p> <p>c) List two advantages of this method.</p>	1 2 1
Each question carries 2 marks		
8.	Protozoans reproduce by binary fission as well as by multiple fission. In your opinion, which process is better and why?	2
9.	"The sex of the children is determined by what they inherit from their father and not the mother." Justify	2
10.	(a) Why do testes located in scrotum outside the abdominal cavity? (b) What will happen to ovary and ovule after fertilization in angiosperms?	1 1
11.	Suggest one word for each of the following statements/definitions. (a) The physical and biological world where we live in. (b) Each level of food chain where transfer of energy takes place. (c) The physical factors like temperature, rainfall, wind and soil of an ecosystem. (d) Organisms which depend on the producers either directly or indirectly for food.	2
Each question carries 3 marks		
12.	(a) State any two changes seen in boys at the time of puberty? (b) Define fertilization and implantation. (c) State the role of ovary and fallopian tube in human body.	1 1 1
13.	(a) Why did Mendel choose garden pea for his experiments? Write two reasons. (b) Justify the statement: "It is possible that a trait is inherited but may not be expressed."	1 2
14.	(a) How is ozone formed in the upper atmosphere? (b) Why is the damage of ozone layer a cause of concern to us?	1 1

	(c) State cause of this damage.	1
15.	(a) What is contraception? (b) List and describe in brief any two ways of contraception (c) List two advantages of adopting contraceptive measure.	1 1 1
	Each question carries 5 marks	
16.	<p>Given below is a schematic diagram showing Mendel's experiment on sweet pea plants having axial flowers with round seeds (AARR) and terminal flowers with wrinkled seeds (aarr). Study the same and answer the questions that follows:</p> <div style="text-align: center;"> </div> <p>(i) Give the phenotype of F1 progeny. (ii) Give the phenotype of F2 progeny produced upon by the self-pollination of F1 progeny. (iii) Give the phenotypic ratio of F2 progeny. (iv) Name and explain the law introduced by Mendel on the basis of the above observation.</p>	1 2 1 1
17.	<p>(a) What is placenta? Mention its role during pregnancy. (b) What will happen if the egg is not fertilized. (c) Study the food chain given below and answer the questions that follow:</p> <div style="text-align: center;"> </div> <p>(i) If the amount of energy available at the third trophic level is 100 joules, then how much energy will be available at the producer level? Justify your answer. (ii) Is it possible to have 2 more trophic levels in this food chain just before the fourth trophic level? Justify your answer.</p>	1 2 1 1