

**The following instructions are to be read carefully**

1. All questions are compulsory.
2. The question paper consists of 26 questions. Question no.1-5 is of 1 mark each, question no.6-10 is of 2 marks each, question no.11-22 is of 3 marks each, question no. 23 is of 4 marks and question no.24-26 is of 5 marks each.
3. There is no over all choice. However an internal choice has been provided in one question of 2 marks, one question of 3 marks, and all the three questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.

	<b>Section A -</b>	<b>marks</b>
<b>Q1</b>	Name a self fertilising plant.	
<b>Q2</b>	Write the function of coleoptiles.	
<b>Q3</b>	List the changes that the primary oocyte undergoes in the tertiary follicular stage in the human ovary.	
<b>Q4</b>	Mention the basic aim in implementing RCH programme.	
<b>Q5</b>	Write the type of sex determination mechanism the following cross shown. Give an example of the type. i) Female XX with Male XO	
	<b>Section B -</b>	
<b>Q6</b>	What are monoecious flower? Give one example	
<b>Q7</b>	What is filiform apparatus? What is its function? OR Name one autosomal dominant and one autosomal recessive mendelian disorder in humans.	
<b>Q8</b>	Describe the stages of oogenesis in human females.	
<b>Q9</b>	Removal of gonads cannot be considered as a contraceptive option. Why?	
<b>Q10</b>	What is pedigree analysis? Suggest how such an analysis can be useful.	
	<b>Section C -</b>	
<b>Q11</b>	In one family, four children each have a different blood group. Their mother has blood group A and their father has blood group B. Work out a cross to explain how it is possible	
<b>Q12</b>	What is Gause's competition exclusion principle? Explain with an example.	
<b>Q13</b>	Certain species of wasps are seen to frequently visit flowering fig trees. What type of interaction is seen between them and why?	
<b>Q14</b>	Explain with the help of two examples, how the pyramid of number and the pyramid of biomass can look inverted.	
<b>Q15</b>	What is meant by ecological succession? Explain how it occurs. OR What properties distinguish a pioneer community from a climax community?	

<p><b>Q16</b></p> <p><b>Q17</b></p> <p><b>Q18</b></p> <p><b>Q19</b></p> <p><b>Q20</b></p> <p><b>Q21</b></p> <p><b>Q22</b></p>	<p>Why are i)alien species invasion and ii) loss of habitat and fragmentation considered to be the major cause of loss of diversity ?Explain with the help of one example each.</p> <p>a) What is EL Nino effect ? Explain how it accounts for biodiversity loss. b) Explain any three measures that you as an individual would take ,to reduce environmental pollution.</p> <p>Offspring is formed due to sexual reproduction have better chances of survival - Why? Is this statement always true? OR Explain any two devices by which autogamy are prevented in flowering plants.</p> <p>Describe the post-zygotic events leading to implantation and placenta formation in humans.Mention any two functions of placenta.</p> <p>Describe vesectomy with diagram.</p> <p>What is chromosomal basis of Turner”s syndrome?Mention the sex and any three symptoms of this disorder</p> <p>Work out a cross to find the genotype of a tall pea plant .Name the type of cross.</p>	
<b>Section D -</b>		
<p><b>Q23</b></p> <p><b>Q24</b></p> <p><b>Q25</b></p>	<p>A son persuades his father to replace his mobile phone with the latest model launched in the market. He also shares the latest features it has and explainshow it can be of a help to him in the morden tech. World.Father is reluctant in buying a new one and tries to explain about the environmental impact.How do you think ,the biologist father has tried to convince his son?Justify the positive aspects displayed by both of them</p> <p><b>Section-E</b></p> <p>Name the muscular and glandular layers of human uterus. b)Which one of these layers undergoes cyclic changes during menstrual cycle?Explain why. c)Name the hormone essential for the maintenance of this layer. OR a) Distinguish between Corona radiata and Zona pellucida b) What happens to the blastocyst immediately after implantation? c) What is the role of cervix of the human female system in reproduction?</p> <p>Name and explain giving reasons , a)the type of immunity provided to the newborn by the colostrum and vaccinations b)Name the type of antibody i)present in colostrum ii)produced in response to allergens in human body. OR a) List the various causes of variations in the progeny of the population. b) Describe the three different ways in which the natural selection operates in nature with regard to organic evolution.</p>	

<b>Q26</b>	<p>.Give reasons why</p> <p>i)most zygotes in angiosperm divide only after certain amount of endosperm is formed.</p> <p>ii)groundnut seeds are exalbuminous while castor seeds are albuminous</p> <p>ii)apple is considered a false fruit while mango a true fruit</p> <p style="text-align: center;">OR</p> <p>At the time of Independence ,the population of India was 350 million which exploded to over 1 billion by May 2000 .List any two reasons for this rise in population and any three steps taken by the government to check this population explosion.</p> <p>-----</p> <p>-----</p>	
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Prepared by Ms.Anjali Dhar