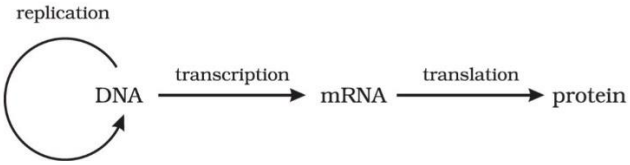
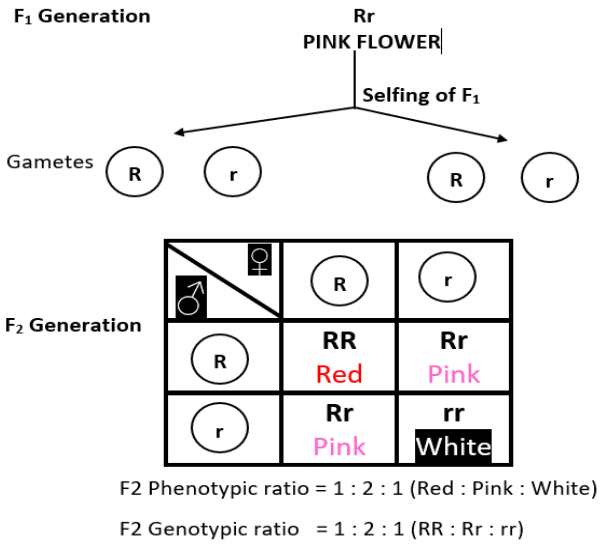
	PART -B **ZOOLOGY**	
Qn. No.	Scoring indicators	Marks
	PART - I	
	Answer any 3 questions from 1 – 6. Each carry 1 score	
1.	Fallopian tube. Fallopian tube is the part of Duct system of / reproductive part of female. OR All others are part of male reproductive system.	½ + ½ = 1
2.	Flow of genetic information flows from DNA → mRNA → Protein OR  	1
3.	(C) / *Saccharomyces cerevisiae*	1
4.	(C) / Malaria – Plasmodium.	1
5.	Zoological Park, Botanical Garden.	½ + ½ = 1
	PART - II	
	Answer any 9 questions from 6 – 16. Each carry 2 scores	
6.	(a) 1. Human chorionic gonadotropin / hCG 2. Human placental lactogen /hPL 3. Estrogen 4. Progestogens (Any two hormones) (b) It facilitates the supply of oxygen and nutrients to the embryo. It helps to remove CO_2 and excretory wastes produced by the embryo	1 + 1 = 2
7.	(i) A – Progesterone B – Estrogen. (ii) The remaining parts of the Graafian follicle transform as the corpus luteum. The corpus luteum secretes large amounts of progesterone which is essential for maintenance of endometrium.	1 + 1 = 2
8.	IUD's - Intra Uterine Devices / These devices that are inserted by doctor or expert nurse into the uterus through vagina. Copper releasing IUDs . Eg :- CuT, Cu7 & Multiload 375 Hormone releasing IUDs . Eg :- Progestasert, LNG -20 (Any one example in each)	1 + 1 = 2

<table>
<tr><th>Qn. No.</th><th>Scoring indicators</th><th>Marks</th></tr>
<tr><td>9.</td><td>
<table>
<tr><th>Genetic Disorders</th><th>Genetic Reasons</th></tr>
<tr><td>Klinefelter's Syndrome</td><td>Presence of an extra X chromosome in males (XXY)</td></tr>
<tr><td>Down's Syndrome</td><td>21st Trisomy.</td></tr>
<tr><td>Turner's Syndrome</td><td>Lack of one 'X' chromosome in female (XO).</td></tr>
<tr><td>Phenylketonuria</td><td>Due to autosomal recessive trait.</td></tr>
</table>
</td><td>½ x 4 =2</td></tr>
<tr><td>10.</td><td>(i) A – Terminator B - Coding strand
(ii) It determines the base sequence in mRNA / DNA-dependent RNA polymerase move along this strand to produce mRNA.</td><td>1 + 1 = 2</td></tr>
<tr><td>11.</td><td>(A) The organs that are having similar function but differ in structure and origins.
(B) (i) / Eyes of octopus and mammals (iii) / Wings of butterfly and birds</td><td>1 + 1 = 2</td></tr>
<tr><td>12.</td><td>A – Australopithecines
B – Homo habilis
C – Homo erectus
D – Homo sapiens</td><td>½ x 4 =2</td></tr>
<tr><td>13.</td><td>
<table>
<tr><th>Active Immunity</th><th>Passive Immunity</th></tr>
<tr><td>• Antibodies are produced in the host body when pathogen is entered into body.
• Active immunity is slow in action.
• It shows the property of memory.
• Long term in action.</td><td>• Ready-made antibodies are directly injected into the body.
• Active immunity is fast in action.
• Memory property is absent.
• Short term in action.</td></tr>
</table>
</td><td>1 + 1 = 2</td></tr>
<tr><td>14.</td><td>Avoid undue pressure in adolescence
Proper education & counselling
Providing help from parents & peer group
Looking for the danger sign
(Relevant points related to these points)</td><td>½ x 4 =2</td></tr>
<tr><td>15.</td><td>(A) - Trichoderma polysporum. Used as Immunosuppressive agent.
(B) - Streptococcus. Used as clot buster (Removing the clot).</td><td>1 + 1 = 2</td></tr>
</table>

Qn. No.	Scoring indicators	Marks
16.	(A) – Vertebrates – Fishes Invertebrates – Insects (B) – Genetic Diversity, Species diversity, Ecological diversity	1 + 1 = 2
	PART – III	
	Answer any 3 questions from 17 – 20. Each carry 3 scores	
17.	(A) Sexually Transmitted Infections /Sexually Transmitted Diseases (STD's) OR Diseases or infection which are transmitted through sexual intercourse. (B) Gonorrhoea / Syphilis / Genital herps / Chlamydiasis / Genital warts / Trichomoniasis / Hepatitis - B / AIDS (HIV Infection) (Any Two examples) (C) Avoid sex with unknown partners. Always use condoms during coitus. In case of doubts, consult a qualified doctor. Early detection and complete treatment are needed.	1+1+1 = 3
18.	(A) – Incomplete Dominance (B) –  F2 Phenotypic ratio = 1 : 2 : 1 (Red : Pink : White) F2 Genotypic ratio = 1 : 2 : 1 (RR : Rr : rr)	1+2 =3

19.	(i) A – Habitat loss and fragmentation B – Over-exploitation. (ii) **Alien species invasion** - New species introducing into a geographical region is called exotic species or alien species. It cause decline or extinction of indigenous species. Eg : - Nile Perch introduced into Lake Victoria in East Africa lead to extinction of Cichlid fish in the lake. Introduction African Cat fish (Clarias gariepinus) causes threat to indigenous catfishes in our rivers. Invasive weeds like Lantana, Carrot grass (Parthenium) & Water hyacinth (Eicchornia) causes environmental damage and threat to native species **Co-extinction** - When a species becomes extinct, the plant and animal species associated with it also become extinct. Eg :- plant and its pollinator, Host and its parasites. (Any one example in each type)	1+1+1 =3
20.	Streptococcus pneumonia bacterium has two strains S strain (smooth strain/Virulent) : Has mucopolysaccharide coat that cause Pneumonia. R strain (rough strain/Non-virulent) : Mucous coat absent and did not cause Pneumonia. **Steps in Griffith's experiment** S-strain → Injected into mouse → Mouse dies of pneumonia. R-strain → Injected into mouse → Mouse lives Heat killed S-strain → Injected into mouse → Mouse lives Heat killed S-strain + Live R-strain → Injected into mouse → Mouse dies Griffith's postulated that some 'transforming principle' transferred from the heat-killed S-strain to R-strain and make them virulent. (Steps in experiment – full score)	3