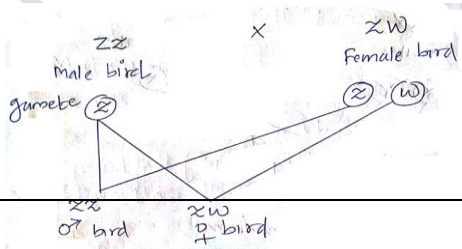
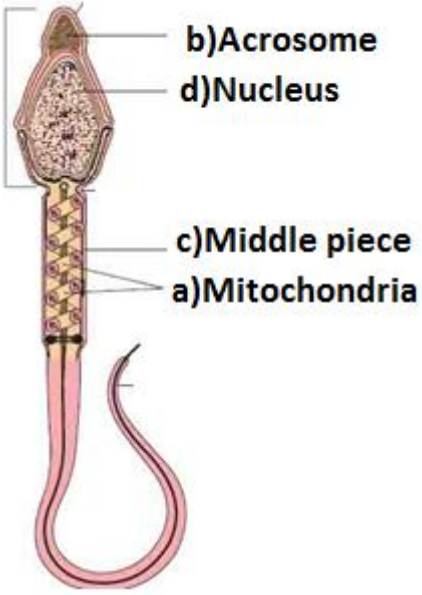


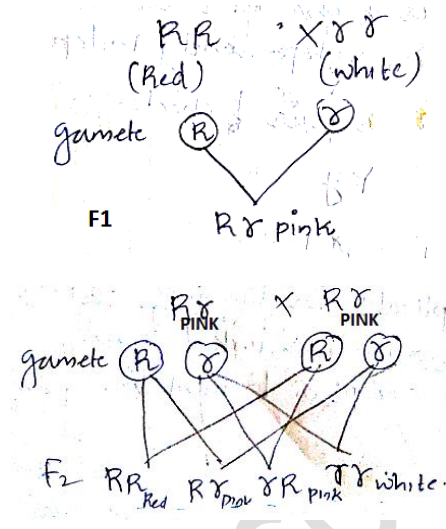
SECOND YEAR QUARTERLY EXAMINATION ANSWER KEY-SEP-2019

ZOOLOGY

Qn No.	Key	Score
1	Menarche	1
2	Garden pea plant/ <i>Pisum sativum</i>	1
3	Down's syndrome	1
4	Saheli	1
5	Turner's Syndrome	1
6	(a) Medical Termination of pregnancy (b) First Trimester/12 weeks (c) To get rid of unwanted pregnancies either due to casual unprotected intercourse or failure of the contraceptive used during coitus or rapes. MTPs are also essential in certain cases where continuation of the pregnancy could be harmful or even fatal either to the mother or to the foetus or both	0.5 0.5 1
7	Eggs. <ul style="list-style-type: none"> <li>Females Birds are heterozygous (ZW) and produce 2 types of gametes (Eggs) containing only Z or W chromosomes besides Autosomes.</li> <li>Males are homozygous (ZZ) and produce only one type of gamete (Sperms) containing only Z chromosomes besides Autosomes.</li> <li>Sex of the baby is determined by the type of Egg into which sperm enter</li> <li>If the Egg containing Z chromosome Receives a sperm, male baby is produced</li> <li>If the Egg containing W chromosome Receives a sperm, Female baby is produced</li> <li>So sex of the baby is determined by the Mother not the Father in ZZ-ZW mechanism.</li> </ul> 	1 1

8	A	B	0.5
	i) Cu Releasing IUDs	Multiload -375	
	ii) Hormone Releasing IUDs	LNG-20	
	iii) Barrier Method	Diaphragm	
	iv) IVF & ET	Test tube baby	0.5
9	(a) Male/Normal male (b) Affected female (c) Mating (d) Mating between relatives/ consanguineous mating		0.5 0.5 0.5 0.5
10	Gametogenesis-Fertilisation-Implantation-Gestation-Parturition (Any 4 Correct sequence full score)		0.5×4=2
11	(a) Fruit fly ( <i>Drosophila melanogaster</i> ) (b) Reason for selecting fruit fly		1
	i. It can grown on simple synthetic medium. ii. It has short life span (2 weeks) iii. A single mating produces large number of progenies. iv. There is clear difference between male and female. (females are larger than male ) v. Hereditary variation can seen with low power microscope. (Any two Reason)		1
12	Yes. Hymen can also be broken by a sudden fall or jolt, insertion of a vaginal tampon, active participation in some sports like horseback riding, cycling. So it is not a reliable indicator of virginity / sexual experience		1 1
13	a) blood group of Father = I <sup>A</sup> i Blood Group of mother = I <sup>B</sup> i b) Off springs 'O' Blood group = ii 'A' Blood group = I <sup>A</sup> i 'B' Blood group = I <sup>B</sup> i 'AB' Blood group = I <sup>A</sup> I <sup>B</sup>		0.5 0.5 1
14	Drawing		1

		1
15	<p>(a) Turner's syndrome</p> <p>(b) Autosomal linked</p>	1 1
16	<p>(a) i) Periodic abstinence : ii) Withdrawal or coitus interruptus iii) Lactational amenorrhea (Any two)</p> <p>(b) <u>Advantages of natural methods :</u> No medicines or devices are used in natural , side effects are almost nil.</p> <p><u>Disdvantage of natural methods:</u> Chances of failure by this method are also high</p>	0.5 0.5  0.5 0.5
17	<p>a) Figure II</p> <p>b) Sickle cell anameia</p> <p>c) Point mutation/ due to the single base substitution at the sixth codon of the beta globin gene from GAG to GUG.</p>	1 1 1
18	<p>a) Incomplete Dominance</p> <p>b) Hybridization experiment in <i>Mirabilis jalapa</i> (4 o' clock plant), snap dragon (Dog flower) is given below</p>	1

		1
	<p>C) In the above example 'R' is not completely dominate over 'r'. This is due to incomplete dominance. So the heterozygoys off springs shows intermediate character between 2 parent s.</p> <p><b>Example-2</b> <b>Starch grain size in Pea seed</b></p> <ul style="list-style-type: none"> <li>Starch grain size in pea seed is controlled by one gene. It has 2 alleles (B and b)</li> <li>BB-----→starch synthesized effectively (large sized starch grains)</li> <li>bb-----→ lesser efficiency in starch synthesis (small sized starch grains)</li> <li><b>Bb-----→ Intermediate sized starch grains</b></li> </ul> <p>(Any one example)</p> <p>c) In the above example 'B' is not completely dominate over 'b'. This is due to incomplete dominance. So the heterozygoys off springs shows intermediate character between 2 parent s</p>	1
19	<p>a) Sexually transmitted disease</p> <p>b) Examples (Any 2) <b>Gonorrhoea</b> <b>Syphilis</b> <b>genital herpes</b></p>	1 1

	<p><b>chlamydiasis</b>  <b>genital warts</b>  <b>trichomoniasis</b>  <b>hepatitis-B</b></p> <p>c) <u>STD can be prevented by</u></p> <ul style="list-style-type: none"> <li>• Avoid sex with unknown partners/multiple partners</li> <li>• Always use condoms during coitus. In case of doubt, one should go to a qualified doctor for early detection and get complete treatment if diagnosed with disease.</li> </ul>	1
20	<p>a)human chorionic gonadotropin (hCG), human placental lactogen (hPL), estrogens, progestogens (Any 2)</p> <p>b)Chorionic villi</p> <p>c)Relaxin</p>	1 1 1