

**SECOND YEAR HIGHER SECONDARY MODEL EXAMINATION , FEBUARY-2020**

**ZOOLOGY- ANSWER KEY**

QN.No	SCORING KEY	SCORE
<b>Answer any 3 questions from 1 to 5</b>		
1	Sertoli cell	1
2	Endemism	1
3	Typhoid	1
4	4. AI (artificial insemination)	1
5	5. UTRs	1
<b>Answer any 9 questions from 6 to 16</b>		
6	a) Semi conservative method b) Watson & Crick	1 1
7	. <u>Homologous organ</u> <span style="float:right"><u>Analogous organ</u></span> Divergent evolution <span style="float:right">Convergent evolution</span> Flippers of Whale & Forelimbs of cheetah <span style="float:right">Eyes of octopus &amp; mammals</span>	1 1/2 1/2
8	. a) Cyclosporin A & Statin b) Cyclosporin A – Immunosuppressive agent Statin – Blood cholesterol lowering agent	1 1/2 1/2
9	a) It is an evolutionary process in which different species starting from a common point in a geographical area radiate to other geographical areas. b) Eg: placental mammals & Australian Marsupials	1
10	. a) Progesterone / Progesterone –estrogen combination b) Saheli c) Vasectomy – Male & Tubectomy - female	1 1/2 1/2
11	. A- Nitrogen bases in two strands are paired through hydrogen bonds forming basepairs. B- Two chains are coiled in right hand fashion / the plain of one base stacks over the other in a double helix provide stability	1 1
12	. a) Blastocyst b) A- Inner cell mass      B- Trophoblast	1/2 1/2



19	<p>a) m RNA, tRNA, rRNA</p> <p>b) mRNA- Bring genetic information for protein synthesis, Act as template for DNA synthesis</p> <p>tRNA- act as adaptor molecule, transfer amino acid to the site of protein synthesis</p> <p>rRNA- forms the structure of ribosome, act as catalyst (any one function for each)</p>	<p>1</p> <p>2</p>												
20	<table border="1" data-bbox="342 579 1243 1335"> <thead> <tr> <th data-bbox="342 579 626 615">A</th> <th data-bbox="626 579 854 615">B</th> <th data-bbox="854 579 1243 615">C</th> </tr> </thead> <tbody> <tr> <td data-bbox="342 615 626 890">Downs syndrome</td> <td data-bbox="626 615 854 890">44 A +XX/XY</td> <td data-bbox="854 615 1243 890">Furrowed tongue,short stature with small round neck, partially open mouth, palm is broad with characteristic palm crease, physical, psychomotor and mental development is retarded</td> </tr> <tr> <td data-bbox="342 890 626 1062">Klinefelters syndrome</td> <td data-bbox="626 890 854 1062">44 A + XXY</td> <td data-bbox="854 890 1243 1062">Posses feminine characters , Gynaecomastia, sterile , Feminine pitched voice, poor beard growth ,</td> </tr> <tr> <td data-bbox="342 1062 626 1335">Turners syndrome</td> <td data-bbox="626 1062 854 1335">44 A + XO</td> <td data-bbox="854 1062 1243 1335">rudimentary ovary,underdeveloped feminine character, short stature, webbed neck, poorly developed breast, mental retardation, lack of secondary sexual characters</td> </tr> </tbody> </table> <p>(Any one example)</p>	A	B	C	Downs syndrome	44 A +XX/XY	Furrowed tongue,short stature with small round neck, partially open mouth, palm is broad with characteristic palm crease, physical, psychomotor and mental development is retarded	Klinefelters syndrome	44 A + XXY	Posses feminine characters , Gynaecomastia, sterile , Feminine pitched voice, poor beard growth ,	Turners syndrome	44 A + XO	rudimentary ovary,underdeveloped feminine character, short stature, webbed neck, poorly developed breast, mental retardation, lack of secondary sexual characters	<p>1</p> <p>1</p> <p>1</p>
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