

SECOND

FIRST YEAR HIGHER SECONDARY EXAMINATION, MARCH 2016.

(Finalised Scheme of Valuation)

Subject: Biology – Part B Zoology

Code No 3017 Part B

Qn.No	Scoring Indicators	Split Score	Total Score						
1.	Down's Syndrome	1	1						
2.	a. Father $\overline{I} A_1$ Mother $\overline{I} B_1$ Son $i i$ b. Co-dominance	$1\frac{1}{2}$ $\frac{1}{2}$	2						
3.	<table border="1"> <thead> <tr> <th>IUD's</th> <th>BARRIER METHOD</th> <th>SURGICAL METHOD</th> </tr> </thead> <tbody> <tr> <td>cuT Lippus Loop</td> <td>Cervical caps condoms Diaphragms</td> <td>Vasectomy Tubectomy</td> </tr> </tbody> </table>	IUD's	BARRIER METHOD	SURGICAL METHOD	cuT Lippus Loop	Cervical caps condoms Diaphragms	Vasectomy Tubectomy	3	3
IUD's	BARRIER METHOD	SURGICAL METHOD							
cuT Lippus Loop	Cervical caps condoms Diaphragms	Vasectomy Tubectomy							
	Three headings - $1\frac{1}{2}$ marks								
4	<p>(a) Meselson and Stahl's Experiment / Semi conservative experiment</p> <p>(b) Replication of DNA / Semi conservative method</p>	1 +	2						
5	<p>a. A. Habitat Loss and Fragmentation B. Invasion of alien species</p> <p>b. Co-extinction - when a species becomes extinct, the plant or animal species associated with it in an obligatory way also become extinct.</p>	1 1	2						

Qn.No	Scoring Indicators	Split Score	Total Score															
6	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;">A</td> <td style="width: 10%;"></td> <td style="text-align: center; width: 50%;">B</td> </tr> <tr> <td>corpus luteum</td> <td style="text-align: center;">-</td> <td>Progesterone</td> </tr> <tr> <td>leydig cells</td> <td style="text-align: center;">-</td> <td>Androgens</td> </tr> <tr> <td>Blastocyst</td> <td style="text-align: center;">-</td> <td>Implantation</td> </tr> <tr> <td>Inner cell mass</td> <td style="text-align: center;">-</td> <td>Embryo</td> </tr> </table> <p>(1/2 marks for a correct pair)</p>	A		B	corpus luteum	-	Progesterone	leydig cells	-	Androgens	Blastocyst	-	Implantation	Inner cell mass	-	Embryo	<p style="text-align: center;">1/2</p> <p style="text-align: center;">1/2</p> <p style="text-align: center;">1/2</p> <p style="text-align: center;">1/2</p>	2
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corpus luteum	-	Progesterone																
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Inner cell mass	-	Embryo																
7	<p>Ⓐ Statement 'A' alone is correct</p>	1	1															
8	<p>Ⓐ First codon AUA has to be changed as AUG (start codon)</p> <p>Ⓑ Till the codon UGA / till 6th codon / upto UUU</p> <p>it acts as a stop codon</p>	<p>1</p> <p>1/2</p> <p>1/2</p>	2															
9	<p>Ⓐ Yes</p> <p>BOD is the measure of organic matter present in the water. / greater the BOD, more is the polluting potential.</p> <p>Ⓑ BOD - Biochemical oxygen Demand / Biological oxygen demand.</p>	<p>1/2</p> <p>1/2</p> <p>1</p>	2															

Qn.No	Scoring Indicators	Split Score	Total Score
10	Filariaasis / Elephantiasis Wuchereria species / Filarial worm / micro filaria	1/2 1/2	1
11	(a) Group of chemicals which interact with cannabinoid receptors of brain / Drugs / narcotics (b) From the inflorescence of cannabis sativa / Ganja / Hemp plant / cannabis (c) Brain / Cardiovascular System / nervous system	1 1 1	3
12	(a) B. (b) Determining population / genetic diversity / solving paternity dispute / evolutionary studies / Taxonomic studies / Forensic science / identifying pathogens (any one)	1 1	2
13	Milk produced during initial few days of lactation (colostrum) contains several antibody essential to develop immunity / colostrum / Passive immunity / Ig A / Antibodies. (any one)	1	1

Qn.No	Scoring Indicators	Split Score	Total Score
14	(a) A. Klinefelters Syndrome B. Turner's Syndrome. (b) A - 47 / 44A+X+Y B - 45 / 44A+XO	1/2 1/2 1/2 1/2	2
15	Big Bang Theory	1	1
16	(a) Hardy-Weinberg Principle (b) Gene migration (Gene flow), Genetic drift, mutation, Genetic recombination, Natural selection. (any two) (c) leads to variation / leads to evolution / Speciation <div style="text-align: center; border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">OR</div>	1 1 1	3

Qn.No	Scoring Indicators	Split Score	Total Score
	<p><i>Stabilization -</i></p> <p><i>More individuals acquire mean character value / graphical representation.</i></p> <p><i>Directional change -</i></p> <p><i>More individuals acquire value other than mean character value / graphical representation.</i></p> <p><i>Disruptive change -</i></p> <p><i>More individuals acquire peripheral character value at both ends of the distribution curves / graphical representation.</i></p>	<p>1</p> <p>1</p> <p>1</p>	<p>3</p>