

U.G. 2nd Semester Examination - 2021**ZOOLOGY****[HONOURS]****Course Code : ZOOL-H-CC-P-03****[PRACTICAL]****(KEY)**

Full Marks : 20

Time : 2 Hours

Confidential Part for Examiners.**Key to Question Number 1.**

Time interval (x)	Number of individuals survived(n_x)	Number of individuals dying (d_x)= $n-n_{x+1}$	Age specific survival rate (l_x)= n_x/n_0	Age specific birth rate or fecundity (m_x)	Age specific death rate (q_x)= d_x/n_x	$l_x m_x$
0	60	40	1.00	0	0.67	0
1	20	12	0.33	4	0.60	1.32
2	8	7	0.13	8	0.88	1.04
3	1	1	0.02	3	1.00	0.06
4	0	-	0.00	0	0.00	0
						Total =2.42

Net reproductive rate (R_0) = 2.42**Key to Question Number 2. (Second part)**

	Number(p)	pi	ln(pi)	pi×ln(pi)
Small minivet	5	0.33	-1.11	0.37
Mangrove whistler	2	0.13	-2.04	0.27
Cinnamon bitttern	8	0.53	-0.63	0.33
	Sum=15			Sum=0.97

Shannon-Weiner diversity index = 0.97.

[Turn Over]