

THE OPEN UNIVERSITY OF SRI LANKA
 B. Sc. DEGREE PROGRAMME - LEVEL 4- 2012/2013
 COURSE TITLE: FUNDAMENTALS OF ECOLOGY
 COURSE CODE – ZOU 2265/ZLU2281
 OPEN BOOK TEST

REGISTRATION NUMBER

DATE: 29.09.2013

TIME -11.00AM-12.30 PM

Answer all questions in both parts A and B. Answers for part A should be indicated with a "X" in the answer sheet provided.

Both part A and B should be handed over after the examination.

PART A

Answer sheet for PART A

Ques. No	a	b	c	d	Ques. no	a	b	c	d
1.1					1.11				
1.2					1.12				
1.3					1.13				
1.4					1.14				
1.5					1.15				
1.6					1.16				
1.7					1.17				
1.8					1.18				
1.9					1.19				
1.10					1.20				

PART B

1.1. Define the terms population and density of a population.

a). Population

.....

b) Density of a population.....

.....

1.2. In your practical sessions you have observed (or counted) the number of individuals in each species samples taken from a particular study site.

1.2 a) Name the method that you have used to determine the population size of animals in the above study site.

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1.2 b) Explain the above method (stated in 1.2a) briefly.

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1.2 c) The distributions of animals can be categorized as spatial distribution and temporal distribution. Explain these two terms with relevant examples

Spatial distribution

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Temporal distribution

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1.3. The table given below is a summary of the number of individuals that belongs to different age classes in three human populations (A, B and C) during year 2010.

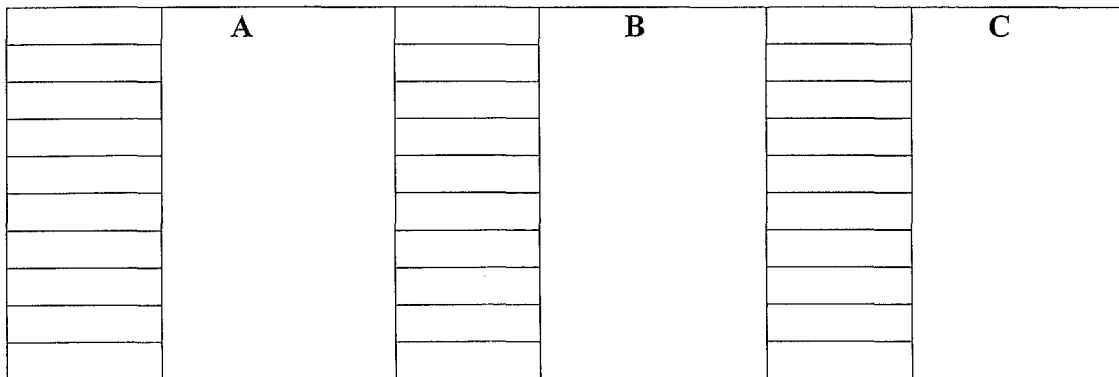
Table 1:

Age class (years)	No. of individuals		
	A	B	C
0-10	250	25	130
11-20	200	50	135
21-30	175	75	115
31-40	125	100	125
41-50	100	125	120
51-60	75	175	115
61-70	50	200	125
71-80	25	250	135

a) State the characteristic feature of a population that can be obtained from such data in **table 1**

.....

b) Plot the data in **table 1** to show the population characteristic you mentioned in above 1.3 a) in the space given below.



C) Explain the type of population growth you may observe in A, B and C populations.

A.....

B.....

C.....

2.

2.1. Define the terms R_0 , r and K .

R_0 :

.....

r :

.....

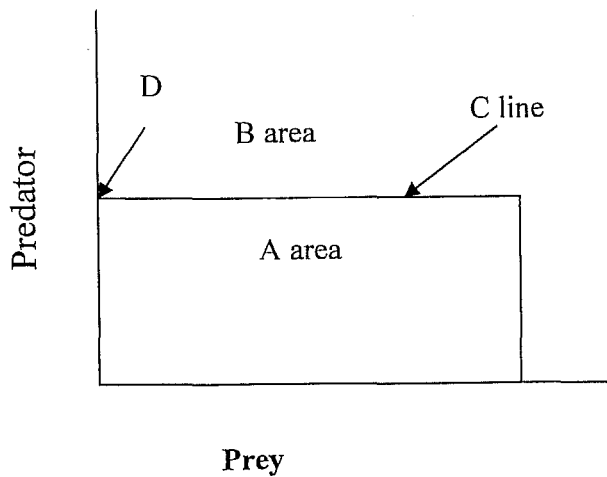
K :

.....

2.2. With suitable examples, explain the differences between discrete generations and overlapping generations of populations.

Discrete generations	Overlapping generations
1	1
2	2
3	3

2.3. Briefly explain the graph given below, in relation with A, B, C and D.



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