



DAMIETTA UNIVERSITY
FACULTY OF SCIENCE
ZOOLOGY DEPARTMENT

Final TERM EXAM. January 2025



المستوى الثالث (لائحة الساعات المعتمدة) برنامج البيولوجيا الجزيئية
وراثة تطورية (٣٠٢ ح)

Date: 9/ 1 / 2025

Time: 2 Hours

Mark: 90

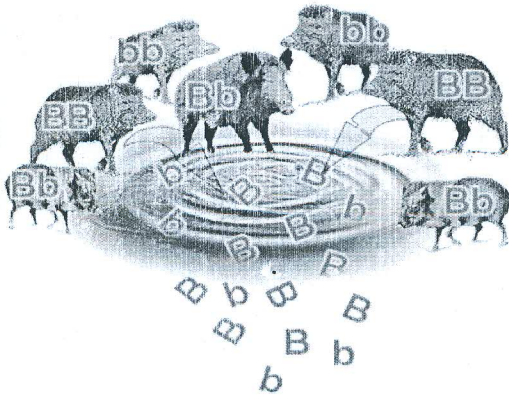
الامتحان في ورقتين

Question One (20 Marks): -

Look at these figures and complete the following:

-The changes in the gene pool can cause1... in the genetic ...2..... of the population of the species as well.

-Gene pool is the ...3..... of different genes in a population of a particular species at a given time.

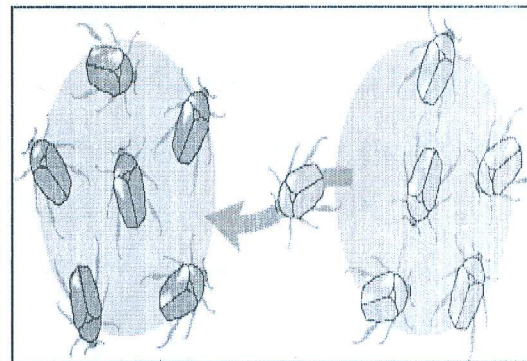


-Gene flow, also called ...4.....and mean ...5.....

-Types of gene flow are...6.....and ...7....

-Factors of gene flow are ...8.....and ...9.....

-Gene flow within a population can ...10.....the genetic variation of the population.



Question Two (20 Marks):

Identify the following terms:

- 1- Genetic variation
- 2- Evolutionary Change
- 3- Genetic drift

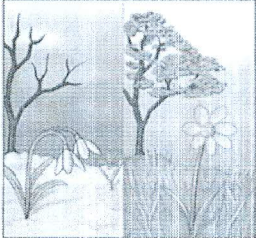
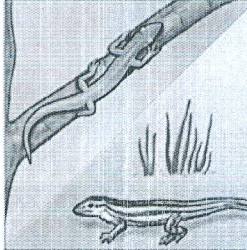
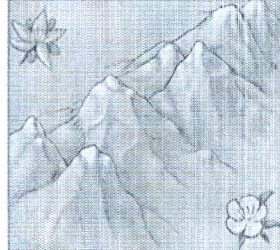
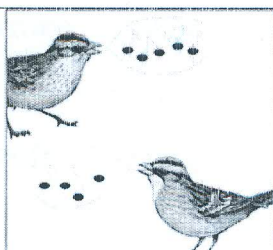
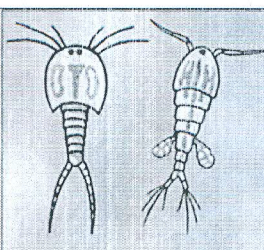
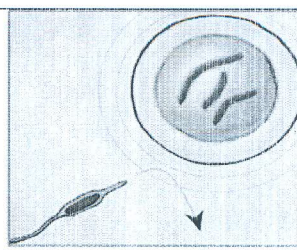
4- Exon shuffling

5- Non-random mating

Question Three (30 Marks):

-Pre-zygotic barriers are various forms of isolation:

Look at these types of isolation and identify each one with examples.

 <p>temporal isolation</p>	 <p>ecological isolation</p>	 <p>geographic isolation</p>
 <p>behavioral isolation</p>	 <p>mechanical isolation</p>	 <p>gametic isolation</p>

Question Four (20 Marks):

What is the difference between the following?

1-Founder Effect - Bottleneck Effect.

2-Monophyletic - Non Monophyletic.

3-Paraphyletic – Polyphyletic.

4-Directional Selection- Stabilizing Selection

With Best Wishes

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