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Courses » Computational Systems Biology

Announcements

**Course**

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## Unit 16 - Week 12

### Course outline

How to access the portal

Pre-requisite Assignment

MATLAB Access and Introduction

MATLAB Learning Modules

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

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Week 11

### Assignment 12

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

**Due on 2018-10-24, 23:59 IST.**

1) Which of the following are true about neutral networks? **1 point**

- ☐ They are phenotypes sharing the same genotype
- ☐ They have implications in robustness/evolvability
- ☐ They denote genes with point mutations that have equivalent functions
- ☐ All of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*They have implications in robustness/evolvability*

*They denote genes with point mutations that have equivalent functions*

2) Match the following: **1 point**

A. Genotype robustness	(i) Number of neutral neighbours averaged over all genotypes with a given phenotype P
B. Phenotype robustness	(ii) 1-neighbourhood of all genotypes exhibiting the phenotype P
C. Genotype evolvability	(iii) Number of different phenotypes found in 1-neighbourhood of a genotype G
D. Phenotype evolvability	(iv) Number of neutral neighbours of a genotype G

- ☐ A - (ii), B - (i), C - (iii), D - (iv)
- ☐ A - (iv), B - (iii), C - (i), D - (ii)
- ☐ A - (iv), B - (i), C - (iii), D - (ii)
- ☐ A - (ii), B - (iii), C - (i), D - (iv)

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- 101 - Advanced Topics
- 102 - Advanced Topics
- 103 - Course Recap
- Quiz : Assignment 12
- Week 12 Feedback : Computational Systems Biology

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**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

(Type: String) 1.6e+60

(Type: String) 1.6E+60

**1 point**

4) How many neighbours can a given genotype have in the above genotype network?

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

(Type: Numeric) 300

**1 point**

5) What is the maximum number of topologies possible for a 3 node network, given that every pair of nodes have two different types of interactions, activation or repression?

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

(Type: Numeric) 729

**1 point**

6) Which of the following sentences are correct regarding ensemble modelling?

**1 point**

- ☐ Models differ only in the parameter sets used
- ☐ Models differ only in the topologies
- ☐ Models differ in both topologies and parameters used
- ☐ Models do not differ in both topologies and parameter sets

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Models differ in both topologies and parameters used*

**1 point**

7) What is a BioBrick™?

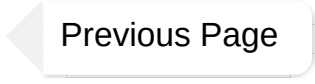
- ☐ Plasmid with restriction sites
- ☐ DNA sequences which performs a biological function
- ☐ DNA sequences that are palindromic
- ☐ Plasmid with desired genes

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*DNA sequences which performs a biological function*

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