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| **paf_kiet_logo** | **COLLEGE OF COMPUTING AND INFORMATION SCIENCES** | | |
| **Final Assessment of Lab Exam (Fall 2020 Semester)** | | |
| **Class Id** | 105127 | **Course Title** | Numerical Computing |
| **Program** | BSCS | **Campus / Shift** | North/ Morning |
| **Date** | November 26, 2020 | **Total Marks** | 20 |
| **Duration** | 03 hours | **Faculty Name** | Iqra Fahad |
| **Student Id** |  | **Student Name** |  |
| **Code** | **D** |  |  |

**Instructions:**

* Fill out your Student ID and Student Name in above header.
* Do not remove or change any part question paper.
* Write down your answers with title “Answer for Question# 00”.
* Handwritten text or image should be on A4 size page with clear visibility of contents.
* In case of CHEATING, COPIED material or any unfair means would result in negative marking or ZERO.
* Viva can be taken with prior notice, where deemed necessary.
* **Caution:** Duration to perform Final Assessment is **02 hours only and 01 hour** is given to cater all kinds of odds in submission of Answer-sheet. **Therefore, if you failed to upload answer sheet on LMS (in PDF format) within 3 hours’ limit, you would be considered as ABSENT/FAILED.**

**Question 01:**

 The number of bacteria measured at different times t is given in the following table. Determine a

function that best fits the data (built-in function allowed). Use the equation to estimate the number of bacteria after 5h (built-in function not allowed). Make a plot of the points and the equation.

https://lh5.googleusercontent.com/uCS4IDGySuXCFb2sGnm8iIkK1Ru2w_fChcgb21wGp-Her8EruiFZpriFKoesOlfEqIyZLb9UQnX1IcxJ-P-anNkv29RV2bwrP6bLWrD8WyNExaPeg_cFzjhIhD1-Rj2ATdiMRuw

**Question 02**

**8** women and **12** girls can paint a house in **10** hours. **6** women and **8** girls can paint it in **14** hours. Find the time to paint the house, by **1** woman alone, and **1** girl alone. Specify the name of method you used to solve this problem and solve it using Python code.