

**INTI INTERNATIONAL COLLEGE SUBANG JAYA**

**CENTRE FOR AMERICAN EDUCATION (CAE)**

**PEER / GROUP ASSIGNMENT 1 (15%)**

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| Programme Name | **AMERICAN UNIVERSITY PROGRAM (AUP)** | | | | |
| Module Name | **C-LANGUAGE & UNIX OPERATING SYSTEM** | | | Module Code | **CSC202A** |
| Session/Semester | **Jan 2020** |
| Module Leader Name | **K SHIVA** | | | Assessment Type / Reference No. | **ASSIGN 1 / Jan 2020** |
| Students Name | 1. | | | Matric No |  |
| 2. | | | Matric No |  |
| 3. | | | Matric No |  |
| Student’s declaration | I hereby certify that this assignment is my own work and where materials have been used from other resources, they have been properly acknowledged. Plagiarism is the use of someone else's ideas or work (including published work from the Internet) without appropriate acknowledgment or credit. This is an academic misconduct, which will result in the award of a zero mark. I also understand I will face the possibility of failing the module if the content of this assignment are plagiarized.  Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
| Learning Outcomes (s) / | * **LOC 1**: Build computer program using basic logic and operation principles. | | | | |
| * **LOC 2**: Contrast computer program solution based on structured programming concept. | | | | |
|  | * **LOC 3:** Demonstrate information management and lifelong learning skills in developing new computer program. | | | | |
| Release Date | **04.02.2020** | Due Date | **27.03.2020, 2PM-4PM**  **A-L4-CSC1** | | **Marks obtained** |
| Date Received |  | Assessed by |  | |

### Deliverables & Assessment Criteria:

**You are required to involve either as a group of 2 members or by own to perform the following tasks. Each group member need to upload their own task in safeassign link provided.**You are required to produce a report for the CSC202A as follows:

* **Task 1** - Assignment title (CSC202A - C Programming & UNIX Operating System Group Assignment), general introduction about Unix Operating System (minimum 1 page)– **5%**
* **Task 2** - Describe **FIVE (5)** themost important **features of C Language** with required example if any – **5%**
* **Task 3** - Briefly discuss the variable declaration and variable definition with suitable example in C Programming Language – **5%**
* **Task 4** - Briefly explain token and preprocessor with any **THREE (3)** examples each– **5%**
* **Task 5** - Given the following variable declarations -**5%**

           short int      si = 10;

            int                i = 25;

long int      li = 50;

float             f = 0.5;

double        d = 1.5;

What would be the value and type of the following expressions?

           float x1=f + si \* i – li

           float x2=i / f + si \* d

           float x3=(double) i / si \* f

float x4=li / i + (int) d / f

**Note:** Your answer MUST be a step by step process; you are not supposed to provide a direct answer. If there is no step by step evaluation, then it would be considering that your answer is **NOT** acceptable even you provided a correct answer.

* **Task 6** – What do these loops print – **5%**

|  |  |
| --- | --- |
| #include<stdio.h>  int main () {  int i;  for(i = 0; i < 10; i = i + 2) {  printf("%d\n", i); }  return 0; } | Answer (only Screenshot of output): |
| #include<stdio.h>  int main () {  int i;  for(i = 100; i >= 0; i = i - 7) {  printf("%d\n", i); }  return 0; } | Answer (only Screenshot of output): |
| #include<stdio.h>  int main () {  int i;  for(i = 1; i <= 10; i = i + 1) {  printf("%d\n", i); }  return 0; } | Answer (only Screenshot of output): |
| #include<stdio.h>  int main () {  int i;  for(i = 2; i < 100; i = i \* 2) {  printf("%d\n", i); }  return 0; } | Answer (only Screenshot of output): |
| #include<stdio.h>  int main () {  int i;  for(i = 10; i < 350; i = i+45) {  printf("%d\n", i);  }  return 0; } | Answer (only Screenshot of output): |

* **Task 7** - Write a C program which accept **TEN (10)** numbers from user as **integer type** and calculate sum and average of numbers as float type. Required to provide all the possible **validation** (if user provides different input) – **15%**
* **Task 8** - Write a C program that accepts **TEN** (**10) even numbers** from the user and then prints the total.  If the user supplies an odd number, reject it and keep requesting another number until it is even.  Required to provide all the possible **validation** (if user provides different input). Do provide **ALL** the possible outputs as your evidence (screen shots) – **15%**
* **Task 9** - MIX, a software company provides petrol allowance for staffs that are frequently on travelling outation. The Petrol allowance claim rate is shown in the table below.

|  |  |
| --- | --- |
| **Kilometer** | **Rate** |
| First 10 Km | RM0.50 per km |
| Next 50 Km (from 11 to 60) | RM0.80 per km |
| Next 50 Km (from 61 to 110) | RM1.00 per km |
| Next 50 Km (from 111 to 160) | RM1.30 per km |
| Beyond 160 Km | RM1.50 per km |

If the total allowance is morethan RM100.00 than an additional bonus of 5% is added as their incentive amount with total amount. Write a C application program to read the name of the staff, the distance that has been travelled, and display or print out the total allowance that the staff received. Required to provide all the possible **validation** (if user provides different input). Do provide **ALL** the possible outputs as your evidence (screen shots) -**25%**

* **Task 10** - Write a C program to find the minimum and the maximum value in an array. Required to provide all the possible **validation** (if user provides different input). -**15%**

***Keep in mind -*** *Required to provide the necessary* ***comments, variable usage, program logic, validation, more interactive and user friendly*** with all the possible output screens for **task 6 - task 10**.

**Instructions to Students:**

* Upload all your work in safeassign link provided. Plagiarism is an academic dishonesty. Maximum plagiarism is 15%. Submit your work in original. F grade will be awarded for a plagiarized/copied work.
* **Group leader is required to collect all the tasks (task 1- task 10, only soft copy) which is carried out by individual member and need to produce during presentation (Only one Word doc file and C program codes – Task 7 to Task 10)**
* **Peer Presentation** (Demonstration of the C Code)and **viva-voce.** If you, failed to present, your assignment will be considered as ***Null and Void*.**