**SO1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science, and mathematics.**

**Passing criterion >= 50%**

PI 1-1 Identify and formulate engineering problems

PI 1-2 Solve problems by applying mathematics and engineering knowledge

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PI 1-1 Identify and formulate engineering problems

**EGCO111 Computer Programming**

**Final Exam 1**

**Students are assigned either Exam A or Exam B**

**Exam A.**

A screenshot of a cell phone

Description automatically generated

**Exam B.**

**A screenshot of a cell phone

Description automatically generated**

| **Student No.** | **PI 1-1 (Exam A)** | **PI 1-1 (Marks)** | **Pass(>=1. 5)** |
| --- | --- | --- | --- |
| 1 | Absence | Absence | - |
| 2 | 0 |  | 🗶 |
| 3 |  | 3 | ✓ |
| 4 | Absence | Absence | - |
| 5 |  | 1 | ✓ |
| 6 | 2 |  | ✓ |
| 7 |  | 0 | 🗶 |
| 8 | Absence | Absence | - |
| 9 |  | 1.5 | ✓ |
| 10 | 1.5 |  | ✓ |
| 11 |  | 1 | 🗶 |
| 12 | Absence | Absence | - |
| 13 | 0 |  | 🗶 |
| 14 | 1 |  | 🗶 |
| 15 |  | 0.5 | 🗶 |
| 16 | 2 |  | ✓ |
| 17 |  | 1 | 🗶 |
| 18 | 1 |  | 🗶 |
| 19 | 1 |  | 🗶 |
| 20 |  | 1 | 🗶 |
| 21 | 2 |  | ✓ |
| 22 |  | 1.5 | ✓ |
| 23 | 1 |  | 🗶 |
| 24 | 0 |  | 🗶 |
| 25 | 0.5 |  | 🗶 |
| 26 |  | 3 | ✓ |
| 27 | 1 |  | 🗶 |
| 28 | Absence | Absence | - |
| 29 | 2 |  | ✓ |
| Number of Pass |  |  | 10 |

PI 1-1 Attainability = 10/24 = 41.66% **Not** **Attainable**

PI 1-2 Solve problems by applying mathematics and engineering knowledge

**EGCO112 Programming Techniques**

**Q.4 Lab Assignment Week 10**

Complete the given function template for calculating nCr for given n and r.

#include <stdio.h>

int main(int argc, const char \* argv[]) {

int menu;

int n,r;

do{

scanf("%d",&menu);

if(menu<4){

printf("Input your number(n): ");

scanf("%d",&n);

}

switch (menu) {

case 1: printf("Your factorial (n!) is %ld", fact(n)); break;

case 2: printf("Input your \'r\'"); scanf("%d",&r); // printf("Your %dC%d is %d", n,r,nCr(n,r));

break;

default: break;

}

}while(menu<4);

return 0;

}

long fact(int n){ //n! =n x (n-1)

long fac=1;

for(n;n>1;n--){

fac\*=n;

}

return fac;

}

| **Student No.** | **PI 1-2 (Marks)** | **Pass(>=0.5)** |
| --- | --- | --- |
| 1 | 0.5 | ✓ |
| 2 | 0.5 | ✓ |
| 3 | 0.5 | ✓ |
| 4 | 0.9 | ✓ |
| 5 | 0.5 | ✓ |
| 6 | 0.5 | ✓ |
| 7 | 0.5 | ✓ |
| 8 | 0 | 🗶 |
| 9 | 1 | ✓ |
| 10 | 0.5 | ✓ |
| 11 | 0.5 | ✓ |
| 12 | 0 | 🗶 |
| 13 | 0.5 | ✓ |
| 14 | 0.5 | ✓ |
| 15 | 0.3 | 🗶 |
| 16 | 0.5 | ✓ |
| 17 | 0.5 | ✓ |
| 18 | 0 | 🗶 |
| 19 | 0.5 | ✓ |
| 20 | 0.5 | ✓ |
| 21 | 0.5 | ✓ |
| 22 | 0.5 | ✓ |
| 23 | 0.4 | 🗶 |
| 24 | 0.3 | 🗶 |
| 25 | 0.5 | ✓ |
| 26 | 0.5 | ✓ |
| 27 | 0.4 | 🗶 |
| 28 | 0 | 🗶 |
| 29 | 0.8 | ✓ |
| Number of Pass |  | 21 |

PI 1-2 Attainability = 21/29 = 72.43 % **Attainable**

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**SO1 Conclusion**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PI** | **Attainability** | **Reason** | **Remedial Action** | **Action plan** | **Measurements** |
| 1-1 | 🗶 | Lower passing criterion due to online learning | Get tutorial session for students |  | Next year |
| 1-2 | ✓ | Lower passing criterion due to online learning |  |  |  |

**SO5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objective.**

**Passing criterion >= 70%**

PI 5-1 Assign the appropriate tasks and establish plans to finish work and meet goals on time (Completeness & Difficulty)

PI 5-2 Create fair collaboration (Teamwork)

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**Project score**

| **Student No.** | **PI 5-1** | **PI 5-2** |
| --- | --- | --- |
| 1 | Absence | Absence |
| 2 | ✓ | ✓ |
| 3 | ✓ | ✓ |
| 4 | Absence | Absence |
| 5 | ✓ | ✓ |
| 6 | ✓ | ✓ |
| 7 | ✓ | ✓ |
| 8 | Absence | Absence |
| 9 | ✓ | ✓ |
| 10 | ✓ | ✓ |
| 11 | ✓ | ✓ |
| 12 | Absence | Absence |
| 13 | ✓ | ✓ |
| 14 | ✓ | ✓ |
| 15 | ✓ | ✓ |
| 16 | ✓ | ✓ |
| 17 | ✓ | ✓ |
| 18 | ✓ | ✓ |
| 19 | ✓ | ✓ |
| 20 | ✓ | ✓ |
| 21 | ✓ | ✓ |
| 22 | ✓ | ✓ |
| 23 | ✓ | ✓ |
| 24 | ✓ | ✓ |
| 25 | ✓ | ✓ |
| 26 | ✓ | ✓ |
| 27 | ✓ | ✓ |
| 28 | Absence | Absence |
| 29 | ✓ | ✓ |
| Number of Pass | 24 | 24 |

PI 5-1: Attainability = 24/24 = 100% **Attainable**

PI 5-2: Attainability = 24/24 =100% **Attainable**

**SO5 Conclusion**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PI** | **Attainability** | **Reason** | **Remedial Action** | **Action plan** | **Measurements** |
| 5-1 | ✓ |  |  |  |  |
| 5-2 | ✓ |  |  |  |  |