BAHRIA UNIVERSITY, (Karachi Campus)
Department of Software Engineering
Final Exam
Semester Fall 2021

Course Title: Computer Architecture and Logic Design	**Course Code**: CEL 221
Course Instructor: Dr. Samar Yazdani	**Class**: BSE-3(A)
Lab Instructor: Engr. Ramsha Mashood	**Name:** _____
Max. Marks: 15 Marks	**Reg no:** _____
Time: 1.5 hours	**Date:** 26-1-2022

NOTE:

- Plagiarism is not allowed, if found you will get zero marks.
- Try to submit the task on LMS in the given Time.
- Include your name or enrollment no on the footer.
- Your File name should be in the given format:
    - [Class Section] [Complete Name] CPOEL1 **i.e., BSE3A Usman Ali CALDOEL1**

TASK # 01:   **(Marks: 10)**

In computer programming, we use the if...else statement to run one block of code under certain conditions and another block of code under different conditions.

For example, assigning grades (A, B, C) based on marks obtained by a student.

if the percentage is above 90, assign grade A

if the percentage is above 75, assign grade B

if the percentage is above 65, assign grade C

create a simple program on mars or VVM to maintain student profile like (Name. Enrollment, Batch, Semester) and display its mark sheet.

TASK # 02:   **(Marks: 05)**

Prove de morgan's law by using Boolean algebra construct its equation and prove it with truth table

DeMorgan's Theorem

$$\overline{(AB)} = (\overline{A} + \overline{B}) \qquad\qquad \overline{(A + B)} = (\overline{A}\ \overline{B})$$

Solution:

Truth Table: