 **BAHRIA UNIVERSITY (KARACHI CAMPUS)**

**(OEL-I) - SPRING 2023**

# OBJECT ORIENTED PROGRAMMING LAB (CSL-210)

Class: **BSE 2(B)** Time: 90 Minutes

Course Instructor: **Engr.Mahawish Submission Deadline: 2nd May, 2023**

Lab Instructor: **Engr. Saniya Sarim** Max Marks: 12

**Q1: Design and create a java application named as OEL-I\_Enrollment and *Follow* the provided instructions to create required classes.** **[CLO 3 : 10 Marks]**

1. *Employee*

* Create attributes, empId, empName, empEmail, empContact, empDesignation, empSalary of appropriate data types
* All attributes must be marked private and encapsulation must be applied
* Create a parameterized constructor that initialize all attributes.
* Print all details of employee in a method. Name this method appropriately .

1. *Staff*

* “is a” relation must be established with the Employee class
* Create atrributes staffWorkingHours and staffYearlyBonus of appropriate data types
* All attributes must be marked private and encapsulation must be applied
* Yearly bonus must be of the 10% of the base salary.
* Create a parameterized constructor that initializes all attributes of staff class as well as of base class using super() function.
* Create a metod of appropriate name that displays all the information of the staff including salary.

1. *Faculty*

* “is a” relation must be established with the Employee class.
* Create atrributes facultyWorkingHours and facultyYearlyBonus of appropriate data types
* All attributes must be marked private and encapsulation must be applied
* Yearly bonus must be of the 20% of the base salary.
* Create a parameterized constructor that initializes all attributes of staff class as well as of base class using super() function.
* Create a method of appropriate name that displays all the information of faculty including salary.
* Display details of any 5 employees in the driver class after taking prompt from the user.

**Q2: Lab Viva [CLO 6 : 2 Marks]**