

# University of Asia Pacific

## Department of Computer Science and Engineering

### Program: B.Sc. in CSE

Mid-Semester Examination

Spring-2023

3<sup>rd</sup> Year 1<sup>st</sup> Semester

Course Code: CSE 309

Course Title: Object Oriented Programming II:  
Visual and Web Programming

Credit: 3.0

Time: 1.0 Hour.

Full Mark: 20

There are two questions. Answer all of them. The marks for each question are shown in the margins.

1. a. Formulate an appropriate HTML code that will render the output given below. [5] [CO3]  
*Note: Gender and Hobbies levels are radio button and checkbox.*

### HTML FORM

Username:

Password:

Gender: ☐ Male ☐ Female

Hobbies: ☐ Reading ☐ Traveling ☐ Sports

- b. Show the output of the following Python program. [5] [CO2]

```
1 list = [1,2,3,4,5]
2 print(list[-1])
3 list.append(6)
4 print(list)
5 list.insert(2, 7)
6 print(list)
7 list.pop(2)
8 print(list)
9 list.remove(1)
10 print(list)
11 list = list + [8, 9, 10]
12 print(list)
13 print(len(list))
14 print(list[1:4])
15 print(list[:3])
16 print(list*2)
```

2. Asia Cup Cricket Tournament is going on, and you have to create a program to manage the participating teams and players. Using the concept of Object-Oriented Programming, prepare a Python solution to satisfy the following scenario. Your program should include the following: [10] [CO2]

- I. An abstract base class **CricketTeam** with two attributes: **team's name** and **captain** and an abstract method **get\_squad()**.
- II. A concrete subclass **AsiaCupTeam** that inherits from **CricketTeam** and represents a team in the Asia Cup.
- III. A class **Player** to represent individual cricket players with attributes **name** and **role**.
- IV. In the **AsiaCupTeam** class:
  - Include an **\_\_init\_\_** method to initialize the **team's name** and **captain** and an empty list of players
  - Add a method to **add\_players** to the squad.
  - Implement the abstract method **get\_squad()** to return the list of players in the squad.
- V. In the main part of your program:
  - Create instances of **AsiaCupTeam** **teambd** representing Team Bangladesh by creating following object of **AsiaCupTeam** class and print all the provided data.  
teambd = **AsiaCupTeam**("Bangladesh", "Shakib Al Hasan")  
teambd.add\_player("Liton Kumar Das", "Opening Batsman")  
teambd.add\_player("Mushfiqur Rahim", "Middle Order Batsman")  
teambd.add\_player("Taskin Ahmed", "Right-arm Fast Bowler")

The program should give the following output:

Asia Cup 2023 Teams and Players:

Team: Bangladesh

Captain: Shakib Al Hasan

Squad:Name: Liton Kumar Das Role: Opening Batsman

Name: Mushfiqur Rahim Role: Middle Order Batsman

Name: Taskin Ahmed Role: Right-arm Fast Bowler