JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
T2-EXAMINATION–OCTOBER 2019

B. Tech VI Semester (Backlog)

Course Code: 10B11CI614   **Max. Marks: 25**
Course Name: Object-Oriented Systems and Programming
Course Credits: 4   **Max. Time: 1 Hour 30 Minutes**

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. What is difference between class template and function template? Define a function template to sort an array of elements of int type, float type, and string type. (CO-4)   **[6 marks]**

2. Create a class *Employee* with data members as: *empid, ename,* and *salary*. The member functions are *enter()* and *display()* to enter and display the record of the employee, respectively. In the main method write multiple objects of this class into the file say "*emp.txt*" and then read the second record. (CO-4)   **[6 marks]**

3. Define a class *Distance* with data members: *kmeter* and *meter*. Define conversion function to convert *Distance* object into distance in miles (*float* type). Also make use of constructor to convert distance in mules (*float* type) into the object of *Distance* class. (CO-3)   **[6 marks]**

4. Define a *SoccerPlayer* class that includes three integer fields: a player's jersey number, number of goals and number of assists/passes. Overload extraction and insertion operators for the class. The class also contains an operator > () function. One SoccerPlayer is considered greater than another if the sum of goals plus assists is greater. Create an array of 11 *SoccerPlayer* class and then use > operator to find the players who have the maximum total, i.e. goals plus assists. (CO-3)   **[7 marks]**