**Ahsanullah University of Science and Technology**

Course No: CSE 1206

Time: 1 hour

Total marks: 20

|  |  |
| --- | --- |
| 1. | Create a class named “Batsman” that has four instance variables: (2)   1. name (String) 2. country (String) 3. age (int) 4. A two-dimensional array called “Info”: the first row contains information about the status of the batsman (i.e., *out or not-out, hint: 0 means out and 1 means not-out)* and the second row contains number of runs he/she scored in a match. Each column saves the information of a match. The array should hold information of 15 matches.  * Provide proper constructors, setter and getter methods. (1) * Provide a method that will return the status of the batsman and number of runs he/she made on a particular match. The match number is given as a parameter. (2) |
| 2. | Create another class named “Bowler” that has four instance variables: (2)   1. name (String) 2. country (String) 3. Age (int) 4. A two-dimensional array called “info”: the first row contains information about how many runs the bowler gives and the second row contains information about how many wickets he/she takes in the match. The array should contain information of 15 matches.  * Provide proper constructors, setter and getter methods. (1) * Provide a method that will return the numbers of wicket taken and the number of runs he/she gives. The match number is given as a parameter. (2) |
| 3. | Create a class called “Cricketer” that has two static methods with the same name: calculateAverage(). One static method calculates the average for a “Batsman” while the other method calculates the average for a “Bowler”. Use a proper object-oriented concept to design the class. (7)   * Average of a batsman is calculated by dividing Number of runs by No. of times batsman got out. * Average for a bowler is calculated by dividing Number of runs he gives on his bowling by number of wickets he took. |
| 4. | Create a demo class that contains the main() method. You have to illustrate the concept you use in question # 3 by providing an example. (3) |