

**End Semester Examinations - 2015-16 Even Semester - May 2016**

**14CS2040 Programming in Java**

**Set A**

**Time : 3 hrs**  
**Total Marks: 100**

1. a) Discuss the object oriented principles with respect to Java. (8)  
b) Create a menu driven program to perform the various metric conversion (12)
- i. Meter to Kilometer
  - ii. Fahrenheit to Celsius
  - iii. Dollar to Rupee

**OR**

2. a) List out the relational and bitwise operators used in Java with suitable examples (10)  
b) Twenty-five numbers are entered from the keyboard into an array. Write a Java program to find out how many of them are even and how many are odd .Finally prints out number of odd and even numbers and list odd number and even numbers separately. (10)
3. a) Write a menu driven program in java to perform the following operations on the class Time Schedule with the attributes such as class Room, hour, day, faculty, subject and batch. (10)
- i. Create a Time Schedule
  - ii. Modify the day, hour in the Time Schedule (Hint: function passes object as an argument)
  - iii. Display the Time Schedule
- b) Demonstrate the creation and utilization of the packages and its access specifiers. (10)

**OR**

4. a) Write a program in Java to create a Player interface. Inherit classes Cricket \_Player, Football \_Player and Hockey\_ Player from Player. Add the necessary features and functionality as given below in each class and customize members and functions according to the type of game. (10)
- a. Add Player
  - b. Edit Player
  - c. Delete Player
- b) Differentiate Error and Exception? How do you handle exceptions in order to avoid the stop midstream of the program. (10)
5. a) Create an enumeration for 10 different vegetables which includes price as the member. Get any 3 vegetables and calculate the total cost for required quantity. (10)  
b) What is Synchronization? How do you achieve in multithreading? Give Example. (10)

**OR**

6. a) List character extraction string functions. And write a program to count (10)

the occurrence of a given character in a given String.

- b) Write a program in Java that executes three threads. First thread (10) displays “Good Morning” every one second, the second thread displays “Hello” every two seconds and the third thread displays “Welcome” every three seconds. Create the three threads by extending the Thread class.

- 7.
- a) Create an applet program which shows the flow of execution of all life cycle methods of applet by printing a message in the applet window at the position (20, 30). (10)
- b) Create an Frame with the following descriptions: place three buttons in the window namely Green, Blue, Yellow, when user click any of these buttons change the background of the window corresponding to the button clicked. Achieve above mentioned using proper Listener. (10)

**OR**

- 8.
- a) Discuss about any four Listeners interface along with its methods and Event class with suitable example for any one Listener. (10)
- b) List the predefined layout manager classes and elucidate any two with example for arranging the calculator controls. (10)
- 9.
- a) Write a Java program to read a file content and write the consonants to the other file. (8)
- b) Create a student class with name, regno, cpga, getdata() and printdata(). (12)  
Create five student objects do the following operation,
- Write above details into a file called “stu\_data.txt” through serialization
  - Retrieve data from “stu\_data.txt” and Print on console.

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**Wishing you All the Best**

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