Seat No:_____

GANPAT UNIVERSITY

B. TECH, SEM-VI (E&C ENGINEERING)

REGULAR EXAMINATION - CBCS MAY/JUNE-2013

2EC606 Object Oriented Programming

TIME: 3 HOURS **TOTAL MARKS: 70**

INSTRUCTIONS:

1. Attempt all questions.
2. Answers to the two sections must be written in separate answer books.
3. Figures to the right indicate full marks.
4. Assume suitable data, if necessary.

SECTION 1

Q.1 **(A)** What are the issues with procedure oriented programming? How Object Oriented Programming resolves those issues? Explain with figure. **6**

(B) What are the types of java control statements? Demonstrate with figure. **6**

OR

(A) How main method is defined in Java? Explain importance of each word in typical main declaration. **6**

(B) Explain following features of Java. **6**

a. Platform Independent b. Dynamic and extensible

Q.2 **(A)** Write a java program that uses command line arguments for data input. Program prompts user to enter 10 names. Once all the names have been entered, program outputs the name which has maximum number of vowels among all 10 names. *Assumption:* All the names have different numbers of vowels. **6**

(B) How will you reuse the class which has already been created before? What are various ways of doing so? **5**

OR

(A) Design a class to represent a bank account. Include the following members. **6**

Data members: Name of depositor
Account Number (10 digit)
Type of account
Balance amount in account

Methods : To assign initial details
To deposit an amount
To withdraw an amount after checking the sufficient balance
To display name and current balance

(B) How constructor and normal method of class differ? Write a program to demonstrate the constructor overloading. **5**

Q.3 **(A)** Explain enhanced for loop with an example. Is it always preferable to use enhanced for loop than simple for loop? Justify your answer. **4**

(B) What is difference between abstract class and interface? **4**

(C) What are the applications of wrapper classes? **4**

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SECTION-II

Q.4 (A) Explain the two ways to implement multithreading in java program. 6

(B) Differentiate String class and StringBuffer class with explanation of their methods. 6

OR

(A) Describe the different stages in the life cycle of an applet. 6

(B) What are the possible combinations of using *try* and *catch* for handling an exception. What is use of *Finally* statement? 6

OR

Q.5 (A) The Transport interface declares a deliverload() method. The abstract class Animal is the super class of the Tiger, Camel, Deer and Donkey classes. The Transport interface is implemented by the Camel and Donkey classes. Write a test program that initialize an array of four Animal objects. If the object implements the Transport interface, the deliverload () method is invoked. 7

(B) Provide the type of exception thrown for each of the the following situations. 4

a. Trying to access array element with invalid index.
b. Trying to access object which has not been allocated memory location.
c. Trying to store wrong type of data in array
d. Trying to open a file but with a different name by mistake.

OR

(A) Explain exception handling in java. Write a program that generates custom exception if a string given from its command line arguments has a length greater than 20. 7

(B) What are the two ways to acquire thread synchronization? 4

Q.6 (A) Explain static method and static import. 4

(B) A class called *Room* contains some data members and a method called *tellMeTotalRooms( )*. This method always return total number of Room objects created till now. Write a java program to achieve this. 4

(C) Explain how Vectors can be declared, initialized and altered. 4

~~~~~~ ***Best of Luck*** ~~~~~~
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