Enrolment Number: 17

P P SAVANI UNIVERSITY
P P SAVANI SCHOOL OF ENGINEERING
3Rd Semester of B Tech Examination (1st Internal Exam)

Subject: Object Oriented Programming with JAVA (SEIT2010)
Branches: CE/IT

[Date: 24/08/2018, Friday] [Time: 11.00 A.M. to 12.00 A.M.] [Total Marks: 30]

Instructions:

- Figures to the right indicate full marks.
- Q 1 & 2 are compulsory.
- Use of scientific calculator is allowed.
- Draw neat and clean drawings & Assume suitable data if necessary.

Q.1 Give answer in one sentence. **(05)**

1. What is static variable?
2. Does Java support pointers?
3. Give one use of **this** key word.
4. What is the default value of the local variables?
5. Is constructor inherited?

Q.2.A Define the following terms with an example: 1) Class 2) Object **(05)**

Q.2.B What is the purpose of default constructor? Explain with an example. **(05)**

Q.3.A Explain three usage of super keyword with an example. **(06)**

Q.3.B Explain JDK, JRE and JVM. **(04)**

OR

Q.3.A Explain types of inheritance supported in Java and give reason why multiple inheritance is not supported in Java. **(06)**

Q.3.B Difference between method Overloading and Overriding with examples of each. **(04)**

Q.4.A Create a class called Date that includes three pieces of information as instance variables—a month (type int), a day (type int) and a year (type int). Your class should have a constructor that initializes the three instance variables and assumes that the values provided are correct. Provide a set and a get method for each instance variable. Provide a method displayDate that displays the month, day and year separated by forward slashes(/). Write a test application named DateTest that demonstrates classDate's capabilities. **(05)**

OR

Q.4.A Create a class called Invoice that a hardware store might use to represent an invoice for an item sold at the store. An Invoice should include four pieces of information as instance variables-a part number(type String),a part description(type String),a quantity of the item being purchased (type int) and a price per item (double). Your class should have a constructor that initializes the four instance variables. Provide a set and a get method for each instance variable. In addition, provide a method named getInvoice Amount that calculates the invoice amount (i.e., multiplies the quantity by the price per item), then returns the amount as a double value. If the quantity is not positive, it should be set to 0. If the price per item is not positive, it should be set to 0.0. Write a test application named InvoiceTest that demonstrates class invoice's capabilities **(05)**