Subject Title: **Project Based Learning in Java**

Subject Code: **20CST319/20ITT319**

Semester: **5th**

Time: 3 Hour Maximum Marks: 60

**Instructions: Attempt all questions**

|  |  |  |
| --- | --- | --- |
| Q. No | Statement | CO mapping |
| **Section A**  5 x 2 = 10 marks | | |
| 1 | What is the significance of using this keyword in constructor? | CO 1 |
| 2 | List various test fixtures. | CO 2 |
| 3 | What is the purpose of DTD in XML. | CO 1 |
| 4 | List various implicit objects of JSP. | CO 3 |
| 5 | Differentiate GenericServlet and HttpServlet. | CO 3 |
| **Section B**  4 x 5 = 20 marks | | |
| 6 | Write a program to differentiate between throw and throws keyword. | CO 2 |
| 7 | What is thread synchronization. Write a program to study thread synchronization in java. | CO 3 |
| 8 | Explain various XML parsers and importance of parsing. | CO 2 |
| 9 | Differentiate Servlet and JSP and also write code for both. | CO 3 |
| **Section C**  3 x 10 = 30 marks | | |
| 10 | Create a class named ‘Animal’ which includes methods like eat() and sleep(). Create a child class of Animal named ‘Bird’ and override the parent class methods. Add a new method named fly(). Create an instance of Animal class and invoke the eat and sleep methods using this object. Create an instance of Bird class and invoke the eat, sleep and fly methods using this object. | CO 3 |
| 11 | Explain various ArrayList class methods with the aid of program. | CO 5 |
| 12 | Explain Request Dispacher, its methods with appropriate diagrams. Also give example to illustrate difference between them. | CO 4 |