

PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
BCA / IMCA Summer 2017-18 Examination

Semester: 4**Subject Code: 05101251 / 05301251****Subject Name: Core Java****Date: 18-05-2018****Time: 10:30AM to 01:00PM****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Answer the followings.**A. Write short notes.****(05)**

1. Which type of class is not inherited in java?
2. List out the types of access specifier in java.
3. Which exception is occurred when invalid array index is used?
4. Give a full form of JRE
5. Which package is needed to use swing components?

B. Multiple choice type questions/ Give the sentence true or false. (Each of 01 marks)**(10)**

1. What is the range of short data type in Java?
 - A) -128 to 127
 - B) -32768 to 32767
 - C) -2147483648 to 2147483647
 - D) None of the mentioned
2. What is byte code in the context of Java?
 - A) The type of code generated by a Java compiler
 - B) The type of code generated by a Java Virtual Machine
 - C) It is another name for Java source file
 - D) It is the code written within the instance methods of a class
3. Instance variables that are private in a base class can be accessed in the definition of a method in a derived class. [true/false]
4. The JRE deletes objects when it determines that they are no longer being used. This process is called Garbage Collection. [true/false]
5. When a class extends the Thread class, it should override method of Thread class to start that thread.
 - A. start() B. run() C. init() D. go()
6. Which package provides many event classes and Listener interfaces for event handling?
 - A. java.awt
 - B. java.awt.Graphics
 - C. java.awt.event
 - D. None of the above
7. Which is the container that doesn't contain title bar and MenuBars but it can have other components like button, textfield etc?
 - A. Window
 - B. Frame
 - C. Panel
 - D. Container
8. The built-in base class in Java, which is used to handle all exceptions is
 - A. Raise B. Exception C. Error D. Throwable
9. Which of these class is used to read characters and strings in Java from console?
 - A. BufferedReader B. StringReader C. BufferedStreamReader
 - D. InputStreamReader
10. _____ keyword is used to access members of the base class.
 - A. Final B. Super C. Base D. Parent

- Q.2 Answer the followings.(Any Five) (15)**
1. Draw Diagram of compilation and execution process of java code.
 2. Explain Throw and Throws keyword in exception handling
 3. What is Constructor? Explain constructor overloading with example.
 4. Explain the use of Final keyword in java.
 5. What is Layout Manager? Explain Grid Layout with Example.
 6. What is package? What is the scope of various Access modified in same and different package?.
- Q.3 Answer the following. (Any Three) (15)**
1. Write differences between AWT and Swing
 2. Explain event delegation model.
 3. Write a program to display odd no between 1 to 20 at interval of one second using thread
 4. What is Abstract class? Why it is required? Differentiate Abstract class and Interface.
- Q.4 Answer the following.**
- A.** Explain any five feature of java in detail. (05)
- B.** Design Student Registration form using different Swing Components. (10)
- OR**
- B.** Draw AWT Class Hierarchy and Explain all components of it with Example. (10)