



BHARATI VIDYAPEETH'S
INSTITUTE OF COMPUTER APPLICATIONS & MANAGEMENT (BVICAM)
(Affiliated to Guru Gobind Singh Indraprastha University, Approved by AICTE, New Delhi)
A-4, Paschim Vihar, Rohtak Road, New Delhi-110063, Visit us at: <http://www.bvicam.in/>

Course Code: MCA-205

Course Name: Java Programming

Class Test 2

Time: 1 Hour

Max Marks: 20

1. Elaborate in depth the **JVM internal architecture**. Highlight the significance of various memory areas present in the JVM and how garbage collection works in them. 5 marks
2. Elucidate the concept of **Remote Method Invocation**. Discuss the significance of RMI registry and stubs and skeletons in the process of marshalling and un-marshalling. 5 marks
3. Create a class called **ColorDialog** that allows user to choose a color. 10 marks
The dialog should display three text boxes where a number in the range 0-255 can be entered. The dialog box should further have three buttons: Test, Ok and Cancel. When user clicks:

Test: The entered values should be used to create a color and the color should be set as the background color of a test label.

Ok: The selected color should be saved in a class member for further reference and the dialog should get closed.

Cancel: The dialog should get closed without saving the entered values.
4. Consider an input XML file with the contents mentioned below: 10 marks

```
<?xml version="1.0" encoding="UTF-8"?>
<shiporder orderid="889923"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="shiporder.xsd">
<orderperson>John Smith</orderperson>
<shipto>
<name>Ola Nordmann</name>
<address>Langgt 23</address>
<city>4000 Stavanger</city>
<country>Norway</country>
</shipto>
<item>
<title>Empire Burlesque</title>
<note>Special Edition</note>
```

```
<quantity>1</quantity>
<price>10.90</price>
</item>
<item>
<title>Hide your heart</title>
<quantity>1</quantity>
<price>9.90</price>
</item>
</shiporder>
```

Parse the contents of this file in a Java program making use of:

1. DOM Parser
2. SAX Parser

***** **Wish you luck!** *****