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| **ST. JOSEPH’S UNIVERSITY, BANGALORE-27** |
| **BCA - II SEMESTER** |
| SEMESTER EXAMINATION: APRIL 2023 (Examination conducted in May 2023)**CA2221-JAVA PROGRAMMING** |
| **This Question paper contains 3 part and 2 side print** |
|  |  |  |  |
| **Time- 2 Hrs** |  |  **Max Marks-60** |

**PART A**

**Answer all the following questions. 2x5=10**

1. Write a block code to show the purpose of ‘this’ keyword in java program.

2. Implement a string buffer to use insert() method that inserts the given String with the string at the given position.

3. Mention any four uses of wrapper class.

4. Write the difference between thread joining and thread synchronization.

5. Show how the abstract class differs from normal class.

**PART – B**

 **Answer any FIVE of the following questions. 4x5=20**

11. Write a program that implements constructor overloading and show how to

 handle the details of the students with minimum two types of constructor with different characteristics.

12. How to create own exception to avoid negative value? Show the program for Negative\_value\_exception.

13. Create a java program to input an array and display only the even position elements.

14. What is Multithreading? Write a program which creates Thread Object by using Thread (Runnable r, String name)

15. Create a java program to create a login page using awt package

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16. Create a package ‘HOSPITAL ‘in your current working directory

 include a default class patient in the above package with the following

 attributes: Name, age, gender. Create methods for storing as well as displaying.

17. Write a Multithread program that can perform multiplication and division for a number.

 **PART – C**

 **Answer any THREE of the following questions. 3x10=30**

18. Explain method overriding with program that can calculate the Simple\_interest for an account holder two years. The rate of interest has to be different for two years.

19. a. Write the purpose of Generic Method. Show the program to create a Generic Method for any string operation.

 b. Show java code to input string and count particular character of a string. 5 + 5

20. Develop a Bank interface which has deposit (), withdraw () and Balance () methods. All the methods tagged with public. Show one transaction using the methods.

21. a. Create a program that initialize file and access the content to display. Use the field as ID, age and place. 5+5

 b. Write a program to show where the catch-finally can used. Show the block example.