

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. FOURTH SEMESTER EXAMINATION, JUNE 2022

SECOND YEAR (BATCH 2020-23)

COMPUTER SCIENCE (HONOURS)

Date : 21/06/2022

Time : 11.00 am – 1.00 pm

Paper : VIII [CC8]

Full Marks : 50

Answer **any five** questions of the following:

[5×10]

1. a) What are the class members in Java?
b) Can you access static class members from a non-static members or vice versa.
c) Can you override java.lang.String class? Justify your answer.
d) How can you throw an Exception from java method, without declaring it?
e) What is fully qualified class-name in java?

[2+2+2+2+2]

2. a) Explain usage of the following keywords/names in Java.

[3×2]

i) final, ii) finally, iii) finalize

- b) Use nested for loop to build a 3-dimensional array.

[4]

3. a) try{

[3×2]

```
[statement a]
System.out.println("try");
}catch(Exception e){
    System.out.println("catch");
}finally{
    System.out.println("finally");
}
```

What will printed, if “statement a”,

- i) executes normally
 - ii) generates exception
 - iii) i s, system.exit();
- Write, with reason.

- b) Explain usage of the following keywords in Java.

[2×2]

i) throw, ii) throws

4. a) Can you call the following function from your code. State with reason.

```
public static void main(String[] args)
```

- b) Re-write the below method using synchronized block but using the same monitor object,
Public synchronized void putValue(){
sharedInt=3;
}

- c) Discuss with example, the ways to create threads in Java.

[3+3+4]

5. a) What is method signature in Java?

- b) What is ternary operator? Give an example.

- c) What will be the result of the below,
Given $a=5$;
 $b=7$;
 $a \mid b = ?$
 $a \wedge b = ?$
 $\sim a = ?$

- d) What is the difference between StringBuffer and StringBuilder class?

[2+2+(3×1)+3]

6. a) What is the difference between abstract class and interface?

- b) How to load data from a mysql DB using JDBC. Write down with an example.

[3+7]

7. a) What are the lifecycle methods of Applet?

- b) Does Java support multiple inheritance? Give an example.

- c) What is dynamic method dispatch?

- d) What is autoboxing and unboxing? Give examples.

[3+2+2+3]

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