

# বিদ্যাসাগর বিশ্ববিদ্যালয় VIDYASAGAR UNIVERSITY

## **Question Paper**

## **B.Sc.** Honours Examination 2022

(Under CBCS Pattern)

Semester - II

**Subject: COMPUTER SCIENCE** 

Paper: C 3 - T

(Programming in Java)

Full Marks: 40 Time: 2 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

### Group - A

Answer any <i>four</i> questions.
-----------------------------------

 $5 \times 4 = 20$ 

1. What is object oriented programming (OOP)? Write down the characteristics of OOP.

2+3

- 2. Describe the function data abstraction and encapsulation. Give example.
- 3. What is class? What is constructor? How do we invoke a constructor, discuss with suitable example. 2+1+2
- 4. What are the functions of these String methods: concat(), toLowerCase(), length().
- 5. What is vector in java? What is an interface? Discuss with suitable example. 1+2+2
- 6. How do we design a package in java?

5

P.T.O.

#### Group - B

Answer any two questions.

 $10 \times 2 = 20$ 

- 1. What is byte code? What is inheritance? Discuss with suitable example. What is wrapper class? 2+5+3
- 2. What is multithreading? How java programming differ from C++? Discuss the lifecycle of Applets. 2+3+5
- 3. What do you mean by exception in java? What is an applet? How do applet different from application program? Discuss the bitwise and conditional operator. 3+2+3+2
- 4. (a) Compare and contrast overloading and overriding method.

(b) Write down the life cycle of a thread. Briefly explain.

5+5