

**I.M.C.A. SEM-IV (2014 COURSE) CBCS : SUMMER - 2018**

**SUBJECT: JAVA PROGRAMMING**

Day: **Thursday**  
Date: **03/05/2018**

Time: **10.00 AM TO 01.00 PM**  
Max. Marks: 100

**S-2018-1762**

**N.B.:**

- 1) Attempt any **FOUR** questions from Section –I and any **TWO** questions from Section –II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

**SECTION-I**

- Q.1** What is inheritance? How does it help to design new classes? **(15)**
- Q.2** Explain try, catch and finally keyword with example. **(15)**
- Q.3** Explain Decision and branching statement in Java. **(15)**
- Q.4** Compare overloading with overriding? Comment on when to use which? **(15)**
- Q.5** List and explain logical and bitwise operators in Java. **(15)**
- Q.6** What is an Applet? Illustrate life cycle of an applet. **(15)**
- Q.7** Write short notes on any **TWO** of the following: **(15)**
- a) Interface
  - b) Command line arguments
  - c) this and super

**SECTION-II**

- Q.8** a) Write a Java program to print following pattern. Accept number of rows to print from user. **(10)**
- ```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
```
- b) Write a Java program to get sum of all the numbers from m to n which are divisible by 3, 5 and 7. **(10)**
- Q.9** Write a class with static method as below: **(20)**
- ```
static boolean is_prime (int n) { }
```
- Which returns true if a number is prime otherwise false  
Use this method to count prime numbers among the n numbers entered by user?
- Q.10** Write a class student with properties **(20)**
- rollNo
  - name
  - programme
  - semester
- With parametrized constructor. Also provide methods to set and get values. Also write a main method to create object to this class. Use this class to create instances and display them.