

SH-II/CSC/201/C3/18

B.Sc. Semester-II (Honours) Examination, 2018**COMPUTER SCIENCE (H)****Subject Code : 21501****Course Code : SH/CSC/201/C3****Course Title : Programming in JAVA****Time: 1 Hr. 15 Mins.****Full Marks: 25**

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.
The questions are of equal value.*

1. Answer *any five* questions: 1×5=5
 - (a) Why is Java known as platform neutral language?
 - (b) List two major C++ features that were removed from Java.
 - (c) Why is the main() method in Java to be declared as public, static, void?
 - (d) When do we declare a method or class final?
 - (e) What are the applications of wrapper classes?
 - (f) What is Java interface?
 - (g) What is a remote applet?
 - (h) What is Java thread?

2. Answer *any two* questions: 5×2=10
 - (a) Why do we need the import statement in a Java program? Design a class to represent a bank account. Include the following members:
Data members: Name of depositor, Account number, type of account, Balance amount in the account.
Methods: To assign initial values, to deposit an amount, to withdraw an amount, to display the name and balance. 1+4=5
 - (b) What are the major differences between an interface and a class? How does String class differ from StringBuffer class? What is a package? Why do applet classes need to be declared as public? 1+1+1+2=5
 - (c) Describe the complete life cycle of a thread in Java. 5
 - (d) How does a vector differ from an array? Write a Java program which will read a text and count all occurrences of a particular word. 1+4=5

3. Answer *any one* question: 10×1=10
 - (a) What are the similarities between interfaces and class? Give an example where interface can be used to support multiple inheritance. Develop a stand-alone Java program for multiple inheritance. How do we set priorities for threads? 2+1+6+1=10
 - (b) How do Java applet differ from application program? Develop an applet that receives three numeric values as input from the user and then displays the largest of the three on the screen. Write an HTML page to test the applet. 2+8=10