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# B.C.A. (Semester V) EXAMINATION, 2016 JAVA PROGRAMMING

(2013 **PATTERN**)

Time: 3 Hours

Maximum Marks: 80

**N.B.** :— (i) Neat diagrams must be drawn wherever necessary.

- (ii) All questions carry equal marks.
- (iii) Assume suitable data, if necessary.
- (iv) All questions are compulsory.

### **1.** Attempt any *eight* :

 $[8 \times 2 = 16]$ 

- (a) Does the order of public static void matters in main () method?
- (b) How to print "welcome" message before main ( ) method is executed ?
- (c) Can we use super () and this () within the same constructor?

  Justify.
- (d) What are the different ways of creating string objects?
- (e) State the purpose of wrapper class.
- (f) What type of variables can be defined in an interface?
- (g) Give syntax of two methods used with input stream class.
- (h) Which container uses border layout as its default layout?
- (i) Can a finally block be executed without catch block? Justify.
- (j) List any two restrictions for applets.

#### **2.** Attempt any four:

 $[4 \times 4 = 16]$ 

- (a) Write a java program using swing which consist one drop down list with different font style and one textbox select font and display text in textbox in given font style.
- (b) Write the steps and rules used to create user defined package.
- (c) Explain the use of super and final keywords with reference to inheritance.
- (d) Write a note on event handling.
- (e) Write a program to input a line of text and find out longest word in inputted text. (e.g. I/P Today is my practical exam O/P practical.)

#### **3.** Attempt any four:

 $[4 \times 4 = 16]$ 

- (a) Define an abstract class Hospital with protected members id and name. Define a parameterized constructor. Define one subclass doctor with member department. Create n objects of Doctor and display all details.
- (b) Define collection. Explain any two classes used with collection.
- (c) Explain the need of Garbage collection in Java.
- (d) Write a java program to accept e-mail address of a user and throw a user defined exception "Invalid Email Exception" if it does not contain '@' symbol.
- (e) What is Adapter class? Explain its purpose.

## **4.** Attempt any four:

 $[4 \times 4 = 16]$ 

(a) Write a java program to accept 'n' movie names from the user. Insert into array list and display the contents of same array list, also remove first and last elements and display result.

- (b) Explain the following keywords:
  - (i) Final
  - (ii) Finally
  - (iii) Finalized.
- (c) Explain any four methods of file class.
- (d) Write similarities and dissimilarities between Abstract class and Interfaces.
- (e) Write a java program which accepts n itegers as command line argument. Check the inserted number is prime or not if it is prime store it in an array and display the elements of array.
- **5.** Attempt any four:

 $[4 \times 4 = 16]$ 

- (a) What is Applet? Explain life cycle of Applet.
- (b) Write a java program to read the content of Imp. txt. Display the content of file in encoded format (Use command line argument).
- (c) Create a package Bollywood which has two classes Movie and Actor. Movie has two methods accept ( ) and display ( ) and Actor has two methods accept ( ) and display ( ). Display the information using Bollywood package.
- (d) What are the different types of dialog available in Java? Explain any *two* in detail.
- (e) Explain arrays in Java. How does it differ from C++?