

**BCA-16**

December - Examination 2018

**BCA Pt. III Examination****Programming in JAVA****Paper - BCA-16****Time : 3 Hours ]****[ Max. Marks :- 100**

**Note:** The question paper is divided into three sections A, B and C. Write answers as per given instructions.

**Section - A****10 × 2 = 20**

(Very Short Answer Questions)

**Note:** Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) What is polymorphism? Explain.
- (ii) Explain to String ( ) method of object class.
- (iii) What is the need for an interface in Java?
- (iv) What are the different access specifiers available in Java?
- (v) What is the difference between the methods sleep ( ) and wait ( ).
- (vi) Can you write a Java class that could be used both as an application and as well as an applet?

- (vii) How can a sub class call a method or a constructor defined in a sub class?
- (viii) What is the use of finalize method in Java?
- (ix) Differentiate between runnable and thread.
- (x) Can we use multiple catch block, if yes then how?

**Section - B****4 × 10 = 40**

(Short Answer Questions)

**Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) What do you mean by a thread? What are the different states of a thread?
- 3) What is an applet? Explain the different method used while working with an applet or during the complete life cycle of the applet?
- 4) What is stream in Java. Explain the open stream ( ) method in Java. Also write the hierarchy of stream classes in Java.
- 5) Why Java is Robust Language? Explain.
- 6) What are the different decision control statement in Java? Explain with the help of suitable example.
- 7) What is deadlock, explain in reference to thread in Java.
- 8) What do you mean by thread priorities. How can we set thread priorities. Explain the yield ( ) method.
- 9) Compare garbage collection and finalize method? How is it guaranteed that finalize method is called?

**Section - C****2 × 20 = 40**

(Long Answer Questions)

**Note:** Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) What is the difference between unchecked and checked exception in Java? Give the list of different unchecked exceptions in Java and their meaning? Write an example to implement the use of any one unchecked exception in Java.
- 11) How event driven programming is different from procedure oriented programming? Define graphics context. Explain in brief different drawing function in Java.
- 12) What do you understand by extending classes. How it is different with the concept of reusability. Explain different types of inheritance available in Java. Give the implementation of single inheritance using a suitable example.
- 13) Design a class to represent a bank account. Include the following member.  
Data members – Name of Depositor,  
Account Number, Type of account  
(Savings / Current). Balance amount  
(Minimum balance is Rs. 500.00)  
Methods are –
  - To read account number, name, type of account.
  - To deposit an amount (amount should be added to it.)
  - To withdraw an amount after checking balance.  
(munimum - 500)
  - To display the record (Name, Type and Balance)