BCA(III) / 19 / 15

2015

Time : 3 hours

Full Marks : 80

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

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group–A

(Objective Type Questions)

1. Choose the correct answer of the following :

    2×10 = 20

    (a) Which one of the following terms must relate to polymorphism ?

    (i) Static allocation (ii) Static typing

    (iii) Dynamic binding (iv) Dynamic allocation

    (b) What is the extension of the bytecode files in Java ?

    (i) ·Jav   (ii) ·Java

    (iii) ·Class   (iv) ·bytecode

ME – 15/1   (Turn over)

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4. (a) What is method overloading ? Explain with the help of a program.

    (b) Explain the difference between instance variables and class variables.

5. (a) What is Inheritance ? How is it different from Aggregation ?

    (b) Explain final keyword with all its usages. Support explanation with a program.

6. (a) What is an interface ? How is it different from an abstract class ?

    (b) What is enum type ? Explain with the help of program.

7. (a) What are Exceptions ? How are they handled in Java ?

    (b) What are the differences between Checked and Unchecked exception ?

8. (a) Distinguish among each of the following means of pausing threads :

    (i)   Wait ( )   (ii) Sleep ( )
    (iii) Blocking I/O

    (b) Explain the difference between :

    (i) Vector and Array-List
    (ii) Enumeration and Iterator

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(c) Which of these statements are legal ?

(i) int arr [ ] [ ] = new int [5] [5] ;

(ii) int [ ] arr [ ] = new int [5] [5] ;

(iii) int [ ] [ ] arr = new int [5] [5] ;

(iv) int [ ] arr = new int [5] [ ] ;

(d) Which keyword is used to prevent inheritance ?

(i) Final   (ii) Super

(iii) This   (iv) Final

(v) None of these

(e) Which keyword is used for accessing the features of a package ?

(i) Export   (ii) Import

(iii) Package   (iv) Extends

(f) All enumerations declared inside a class are by default :

(i) Static   (ii) Not static

(iii) Default   (iv) Protected

(g) The two sub-classes of Throwable are :

(i) Error and Assertion Error

(ii) Error and Exception

(iii) Checked and Unchecked Exception

(iv) Error and Runtime Exception

(h) Which state is entered once a thread is created ?

(i) Ready   (ii) Running

(iii) New   (iv) Terminated

(i) Which abstract class is the supper class of all classes used for reading characters ?

(i) Reader   (ii) File-reader

(iii) Byte reader   (iv) Input stream

(j) Which collection does not contain duplicates ?

(i) Set   (ii) List

(iii) Map   (iv) Queue

Group – B
(Long-answer Type Questions)

Answer any four questions of the following :

$15 \times 4 = 60$

2. (a) Why is Java known as platform independent language ?

(b) Explain the structure of Java Program.

3. (a) What is the difference between for, while and do ..... while loops ?

(b) Explain the following :

(i) Variable   (ii) Literal

(iii) Keyword in Java   (iv) Break

(v) Continue   (vi) Data-type in Java