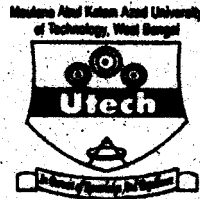


CS/BCA/EVEN/SEM-6/BCAE-602B/2015-16



**MAULANA ABUL KALAM AZAD UNIVERSITY OF
TECHNOLOGY, WEST BENGAL**

Paper Code : BCAE-602B

**OBJECT ORIENTED PROGRAMMING
WITH JAVA**

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

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

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) Return type of a constructor method is
- a) int
 - b) void
 - c) class type itself
 - d) nothing, as no specification of return type is needed.
- ii) Which of the following is used as a part of method signature in Java ?
- a) throw
 - b) try
 - c) throws
 - d) finally.

6/60145

[Turn over

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- iii) Which one of the following is not true about an interface ?
- a) A particular class can implement several interfaces
 - b) It can be implemented by an interface
 - c) It can be implemented by several classes
 - d) It can be partially implemented by a class.
- iv) "String Buffer" differs from "String" in the sense that
- a) String Buffer is used only to buffer data from an input or output
 - b) String Buffer allows text to be changed after instantiation
 - c) String Buffer holds zero length strings
 - d) String Buffer supports Unicode.
- v) Which of the following cannot be used as a method modifier ?
- a) private
 - b) generic
 - c) protected
 - d) synchronized.

6/60145

2

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vi) Which of the following is not a reserved word in Java ?

- a) transient
- b) implements
- c) include
- d) instance of.

vii) A top level class without any modifier is accessible to

- a) any class
- b) any class within the same package
- c) any class with the same file
- d) any subclass of this class.

viii) What will be the result of running the following method with an input of 2 ?

```
Public int my Adder(int n) {
```

```
    Return 0 × 100 + ++n;
```

```
}
```

- a) The method will return 259
- b) The method will return 103
- c) The method will return 260
- d) The method will return 104.

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- ix) Which of the following is used to detect the selection made by a user on a Choice component ?
- a) Action Listener b) Item Listener
 - c) Mouse Listener d) Selection Listener.
- x) Contract of a class is meant by
- a) Number of methods in the class
 - b) Number of data fields in the class
 - c) Number of constructors in the class
 - d) None of these.

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. a) What is meant by specific import ? 1
- b) The "String" type is not a primitive type, but known as a reference type. Justify. 2
- c) What is the difference between an abstract class and an interface ? 2
3. a) Explain the private, protected, private protected modifiers in brief. 3
- b) What is the function of finally ? 2

6/60145

4

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4. a) What are different states in the life cycle of applet ? 2
b) Sketch the life cycle of applet. 3
5. a) How does an application differ from an applet ? 3
b) What are meant by local applet and remote applet ? 2
6. a) What is private constructor ? 3
b) Is there any utility of a private constructor ? 2

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Write a program that checks whether the input String (the string should be taken from user in runtime) is palindrome or not.
b) How to call a constructor from another one ?
c) If we define the constructor in the private section then how we can create an object of that class ?

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- d) "In Java the variables are initialized before any method called even constructor." Explain with an example. $8 + 2 + 2 + 3$
8. a) Write a Program that takes a number input and prints that number in binary and hexadecimal format.
- b) What is the difference between the interface and abstract class ?
- c) What is auto boxing ?
- d) What are the advantages of the vector class ?
- $7 + 3 + 2 + 3$
9. a) What is thread ? How to create a thread in Java ?
- b) What is need of the synchronized block ? Illustrate with an example.
- c) How to override the toString function ?
- $(2 + 2) + 7 + 4$
10. a) Write a program that stores information in the array and then sort the array.
- b) What is the difference between the character stream and byte stream ?
- c) How does java garbage collector work ?

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- d) What is the object serialization in Java ? Illustrate with an example. **4 + 3 + 3 + 5**

11. Write short notes on any *three* of the following : **3 x 5**

- a) String Tokenizer.
 - b) Vector Class ,
 - c) Wrapper Class.
 - d) Command-line Arguments
 - e) Abstract Class.
-