

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086**  
**(For Candidates admitted during the academic year 2015-16 and thereafter)**  
**SUBJECT CODE: 15CS/MC/OP34**

**B.C.A. DEGREE EXAMINATION – NOVEMBER 2017**  
**THIRD SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : OBJECT ORIENTED PROGRAMMING WITH JAVA**  
**TIME : 3 HOURS** **MAX. MARKS: 100**

**SECTION - A**

**ANSWER ALL THE QUESTIONS** **20x1=20**

**Choose the correct answer**

1. What is the range of data type short in Java?  
A. -128 to 127 B. -32768 to 32767  
C. -2147483648 to 2147483647 D. None of the mentioned
2. Which of these operators is used to allocate memory to array variable in Java?  
A. malloc B. alloc C. new D. new malloc
3. Which of these constructors is used to create an empty String object?  
A. String() B. String(void) C. String(0) D. None of the mentioned
4. Which of these methods sets every element of a List to a specified object?  
A. set() B. fill() C. Complete() D. add()
5. Which of these access specifiers can be used for a class so that it's members can be accessed by a different class in the different package?  
A. Public B. Protected C. Private D. No Modifier
6. Which of the following package stores all the standard java classes?  
A. lang B. java C. util D. java.packages
7. Which of these keywords must be used to handle the exception thrown by try block in some rational manner?  
A. try B. finally C. throw D. catch
8. Which of these methods can be used to increase the capacity of ArrayList object manually?  
A. Capacity() B. increaseCapacity()  
C. increasecapacity() D. ensureCapacity()
9. What does AWT stand for?  
A. All Window Tools B. All Writing Tools  
C. Abstract Window Toolkit D. Abstract Writing Toolkit
10. Which of these methods is used to find out that a thread is still running or not?  
A. run() B. Alive() C. isAlive() D. checkRun()

**Fill in the blanks**

11. The smallest individual units in programs are known as\_\_\_\_\_.
12. Java uses \_\_\_\_\_ to represent characters.

13. A subclass can call a constructor method defined by its super class by use of the \_\_\_\_\_ keyword.
14. \_\_\_\_\_ declares a class variable that is to be shared among all instances.
15. \_\_\_\_\_ is a reference to the current object on which the method was invoked.
16. The user interface classes such as Button, Checkbox and Label are subclasses of \_\_\_\_\_ class.
17. An \_\_\_\_\_ is an object that is generated when a run time error occurs.
18. It is possible to throw an exception explicitly using the \_\_\_\_\_ statement.
19. HTML stands for \_\_\_\_\_.
20. Applets are usually downloaded from the \_\_\_\_\_.

### SECTION - B

**Answer all the questions:**

**(5 x 2 = 10)**

21. List the basic data types in Java.
22. What is meant by method overloading?
23. Define inheritance.
24. What is user defined exception?
25. Define an Applet and list its types.

### SECTION - C

**Answer any eight of the following:**

**(8 x 5 = 40)**

26. Discuss the Object Oriented Programming features of Java.
27. Explain the data types with examples.
28. What is a constructor? Explain the various types of constructors.
29. Differentiate between overloading methods and overriding methods.
30. What is the need for a package? How do you create a package?
31. What is an interface? How is it implemented in the Java language?
32. Write a Java program to pick out the largest number in an array of integers.
33. Discuss about StringTokenizer.
34. Explain the architecture of an Applet with a suitable diagram.
35. Discuss and explain deadlocks.

### SECTION - D

**Answer any three of the following:**

**(3 x 10 = 30)**

- 36 Explain the control statements of Java with suitable examples.
- 37 Differentiate Nested classes and Inner classes with appropriate Java programs.
- 38 a) What is an Abstract class?  
b) Explain how the keyword final is used to prevent overriding and inheritance.
39. Write short notes on:
  - a) try and catch statement
  - b) nested try
  - c) throw
  - d) throws
  - e) finally
40. Explain the life cycle of a thread and the methods in Thread class.

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