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**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27**

 **OPEN ELECTIVE - III SEMESTER**

 **SEMESTER EXAMINATION: DECEMBER 2022**

**(Examination to be conducted in December 2022)**

 **CS OE5 –Java Programming**

**Time- 1 1/2 hrs MaxMarks-60**

**1.Which statement is true about Java?**a) Java is a sequence-dependent programming language

b) Java is a code dependent programming language
c) Java is a platform-dependent programming language
d) Java is a platform-independent programming language

**2.Which component is used to compile, debug and execute the java programs?**a) JRE b) JIT
c) JDK d) JVM

**3. Which of these cannot be used for a variable name in Java?**a) numbers b) identifier
c) keyword d) none of the mentioned

**4. What is the extension of java code files?**a) .js b) .txt
c) .class d) .java

**5. What will be the output of the following Java code?**

 **class** increment {

 **public** **static** **void** main(String args[])

 {

 **int** g = 3;

 System.out.print(++g \* 8);

 }

 }

1. 32 b) 33

c) 24 d) 25

6. Which of the following is not an OOPS concept in Java?
a) Polymorphism b) Inheritance
c) Compilation d) Encapsulation

7. What will be the error in the following Java code?

 **byte** b = 50;

 b = b \* 50;

a) b cannot contain value 50
b) b cannot contain value 100, limited by its range
c) No error in this code
d) \* operator has converted b \* 50 into int, which can not be converted to byte without casting

8. What is Truncation in Java?
a) Floating-point value assigned to a Floating type
b) Floating-point value assigned to an integer type
c) Integer value assigned to floating type
d) Integer value assigned to floating type

9. What will be the output of the following Java program?

 **class** Output

 {

 **public** **static** **void** main(String args[])

 {

 **int** arr[] = {1, 2, 3, 4, 5};

 **for** ( **int** i = 0; i < arr.length - 2; ++i)

 System.out.println(arr[i] + " ");

 }

 }

a) 1 2 3 4 5
b) 1 2 3 4
c) 1 2
d) 1 2 3

 10.What is the extension of compiled java classes?
a) .txt b) .js
c) .class d) .java

11. Which of these are selection statements in Java?
a) break b) continue
c) for() d) if()

12.  What is the numerical range of a char data type in Java?
a) 0 to 256 b) -128 to 127
c) 0 to 65535 d) 0 to 32767

13.Which of these is an incorrect array declaration?
a) int arr[] = new int[5]
b) int [] arr = new int[5]
c) int arr[] = new int[5]
d) int arr[] = int [5] new

14. Which of these is an incorrect Statement?
a) It is necessary to use new operator to initialize an array
b) Array can be initialized using comma separated expressions surrounded by curly braces
c) Array can be initialized when they are declared
d) None of the mentioned

15. Modulus operator, %, can be applied to which of these?
a) Integers
b) Floating – point numbers
c) Both Integers and floating – point numbers
d) None of the mentioned

16. Decrement operator, −−, decreases the value of variable by what number?
a) 1 b) 2
c) 3 d) 4

17.  Can 8 byte long data type be automatically type cast to 4 byte float data type?
a) True
b) False

18. What is the stored in the object obj in following lines of Java code?

 box obj;

1. Memory address of allocated memory of object
b) NULL
c) Any arbitrary pointer
d) Garbage

19. Which of these keywords is used to make a class?
a) class b) struct
c) int d) none of the mentioned

20. Which of the following is a valid declaration of an object of class Box?
a) Box obj = new Box(); b) Box obj = new Box;
c) obj = new Box(); d) new Box obj;

21. Which of these operators is used to allocate memory for an object?
a) malloc b) alloc
c) new d) give

22. Which of the following statements is correct?
a) Public method is accessible to all other classes in the hierarchy
b) Public method is accessible only to subclasses of its parent class
c) Public method can only be called by object of its class
d) Public method can be accessed by calling object of the public class

23. What is the return type of a method that does not return any value?
a) int b) float
c) void d) double

24. What is the process of defining more than one method in a class differentiated by method signature?
a) Function overriding b) Function overloading
c) Function doubling d) None of the mentioned

25. Which of the following is a method having same name as that of it’s class?
a) finalize b) delete
c) class d) constructor

26. Which method can be defined only once in a program?
a) main method b) finalize method
c) static method d) private method

27. What is the return type of Constructors?
a) int b) float
c) void d) none of the mentioned

28. Which function is used to perform some action when the object is to be destroyed?
a) finalize() b) delete()
c) main() d) none of the mentioned

29. String in Java is a?
a) class b) object
c) variable d) character array

30. Which of these method of String is used to obtain character at specified index?
a) char() b) Charat()
c) charat() d) charAt()

31. Which of these method of String class can be used to test to strings for equality?
a) isequal() b) isequals()
c) equal() d) equals()

32. What will be the output of the following Java program?

 **class** string\_class

 {

 **public** **static** **void** main(String args[])

 {

 String obj = "I LIKE JAVA";

 System.out.println(obj.charAt(3));

 }

 }

1. I b) L

c) K d) E

33. Which of these selection statements test only for equality?
a) if b) switch
c) if & switch d) none of the mentioned

34. Which of the following loops will execute the body of loop even when condition controlling the loop is initially false?
a) do-while b) while
c) for d) none of the mentioned

35. Which of these jump statements can skip processing the remainder of the code in its body for a particular iteration?
a) break b) return
c) exit d) continue

36. What will be the output of the following Java program?

**class** Output

{

 **public** **static** **void** main(String args[])

 {

 **final** **int** a=10,b=20;

 **while**(a<b)

 {

 System.out.println("Hello");

 }

 System.out.println("World");

 }

}

1. Hello b) run time error
c) Hello world d) compile time error

37. The while loop repeats a set of code while the condition is not met?
a) True
b) False

38.What is true about a break?
a) Break stops the execution of entire program
b) Break halts the execution and forces the control out of the loop
c) Break forces the control out of the loop and starts the execution of next iteration
d) Break halts the execution of the loop for certain time frame

39. What is true about do statement?
a) do statement executes the code of a loop at least once
b) do statement does not get execute if condition is not matched in the first iteration
c) do statement checks the condition at the beginning of the loop
d) do statement executes the code more than once always

40. Which of the following is not a valid jump statement?
a) break b) goto
c) continue d) return

41. Which of this keyword must be used to inherit a class?
a) super b) this
c) extent d) extends

42. Which of these is correct way of inheriting class A by class B?
a) class B + class A {}
b) class B inherits class A {}
c) class B extends A {}
d) class B extends class A {}

43. What is not type of inheritance?
a) Single inheritance b) Double inheritance
c) Hierarchical inheritance d) Multiple inheritance

44. In order to restrict a variable of a class from inheriting to subclass, how variable should be declared?
a) Protected b) Private
c) Public d) Static

45. Does Java support multiple level inheritance?
a) True
b) False

46. Which of these access specifiers must be used for main() method?
a) private b) public
c) protected d) none of the mentioned

47. Which of these is used as a default for a member of a class if no access specifier is used for it?
a) private b) public
c) public, within its own package d) protected

48. How many copies of static and class variables are created when 10 objects are created of a class?
a) 1, 10 b) 10, 10
c) 10, 1 d) 1, 1

49. What is the output of relational operators?
a) Integer b) Boolean
c) Characters d) Double

50. Which of the following operators can operate on a boolean variable?

1. &&

2. ==

 3. ?:

 4. +=

a) 3 & 2 b) 1 & 4
c) 1, 2 & 4 d) 1, 2 & 3

51. What is the value stored in x in the following lines of Java code?

int x, y, z;

 x = 0;

 y = 1;

 x = y = z = 8;

1. 0 b) 1
c) 9 d) 8

52. Which of the following is a type of polymorphism in Java?
a) Compile time polymorphism
b) Execution time polymorphism
c) Multiple polymorphism
d) Multilevel polymorphism

53. Method overriding is combination of inheritance and polymorphism?
a) True
b) false

54. Which of these is the method which is executed first before execution of any other thing takes place in a program?
a) main method b) finalize method
c) static method d) private method

55. Which of these can be used to differentiate two or more methods having the same name?
a) Parameters data type b) Number of parameters
c) Return type of method d) All of the mentioned

56. What will be the output of the following Java code?

**class** array\_output

 {

 **public** **static** **void** main(String args[])

 {

 **int** array\_variable [] = **new** **int**[10];

 **for** (**int** i = 0; i < 10; ++i)

 {

 array\_variable[i] = i;

 System.out.print(array\_variable[i] + " ");

 i++;

 }

 }

 }

1. 0 2 4 6 8
b) 1 3 5 7 9
c) 0 1 2 3 4 5 6 7 8 9
d) 1 2 3 4 5 6 7 8 9 10

57. Which of the following are legal lines of Java code?

 **int** w = (**int**)888.8;

 **byte** x = (**byte**)100L;

 **long** y = (**byte**)100;

 **byte** z = (**byte**)100L;

a) 1 and 2 b) 2 and 3
c) 3 and 4 d) All statements are correct

58. Literal can be of which of these data types?
a) integer b) float
c) Boolean d) all of the mentioned

59. An expression involving byte, int, and literal numbers is promoted to which of these?
a) int b) long
c) byte d) float

60. Which of these keywords can be used to prevent inheritance of a class?
a) super b) constant
c) class d) final