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ICSE MCQS QUESTION BANK

(STRICTLY AS PER ICSE 2022 REDUCED SYLLABUS FOR SEMESTER 1)

by Harshjyot Kaur

ICSE
10
FIRST SEMESTER EXAMINATIONS

This book has one of the largest sets Multiple Choice Questions for ICSE 2022 Semester 1 Examination for Computer Applications examination. Students are advised to attempt all the questions honestly and only then check their answers from the answer key given at the back. Students shall also do a thorough study of their textbooks for guaranteed excellence.

-HARSHJYOT KAUR

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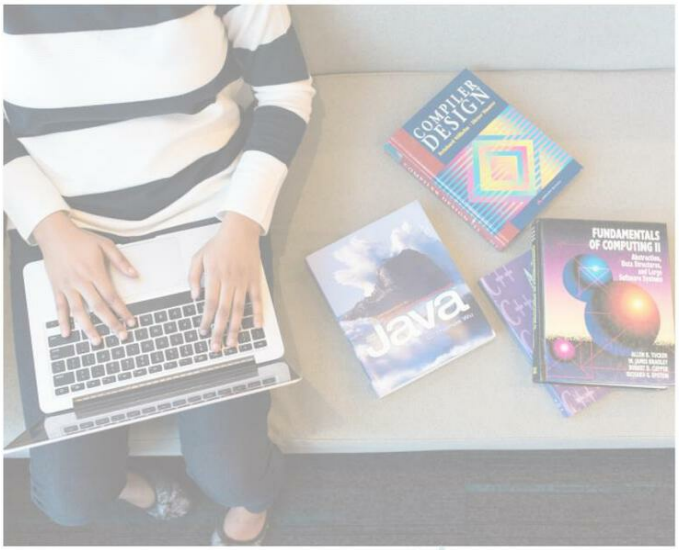

INTRODUCTION TO OOPS AND JAVA

Q1. In object-oriented programming language the stress is given on?
a) Procedure
b) Functions
c) Class
d) Data
Q2. _____ is an instance of a class

a) Method
b) Function
c) Data member
d) Object

Q3. Which of the following is visible and perceptible to touch?

a) A class
b) An object
c) A program
d) A method

Q4. _____ is a prototype of the
attributes and the methods common to all its objects

a) class
b) entity
c) software
d) message

Q5. The concept that lays stress on the essential features to come into view

a) Encapsulation b) Inheritance
c) Polymorphism d) Abstraction

Q6. It is an object makera) class
b) object
c) program
d) function

Q7. The process of combining data and functions together as a single entity

a) Inheritance
b) Encapsulation
c) Classification
d) Abstraction

Q8. JIT stands for
a) Just-In-Type
b) Java-In-Time
c) Java-Instance-Time
d) Just-In-Time

Q9. The process by which an object acquires the properties of another object

a) Inheritance
b) Encapsulation
c) Polymorphism
d) Abstraction

Q10. Structure, name, size and other characteristics of an object is called

a) State
b) Attribute
c) Behaviour
d) All of the above

Q11. Encapsulation concept in java is for

a) Hiding complexity b) Method hiding c) Hiding constructor

d) None

Q12. Which of the following property allow objects to have different internal structures to share the same external interface?

a) Abstraction
b) Polymorphism
c) Encapsulation
d) Inheritance

Q13. The _____ is a part of Java Virtual Machine.

a) Interpreter
b) Compiler
c) Machine code
d) Byte code

Q14. Who developed Java?

a) James Gosling
b) James Thomas
c) Jemes Gosling
d) James Pascal

Q15. Which is not a feature of Java?

a) Object-Oriented
b) Platform-Dependent
c) Reliable
d) Easy
e) None of these

Q16. The java compiler translates java program to intermediate level language called:

a) Machine language
b) Byte code
c) System code

d) Object code

Q17. Java is a _____ generation language. a) Zero
b) Second
c) Third
d) Fourth

Q18. Encapsulation binds data into one and the member methods into another unit. True/False.

a) True
b) False
Q19. The terms _____ and instance are often used interchangeably.

a) Class
b) Method
c) Functions
d) Object

Q20. The term POP stands for

a) Procedural-Object Programming b) Proper-Orientation Programs c) Procedure-Oriented Programming d) Any of these

OBJECTS AND CLASSES

Q1. When an object is created in java a) Compile time
b) Run Time
c) Assembling time
d) All of the above

Q2. Objects interact with each other by passing _____ to each other.

a) Data
b) Notification
c) Messages
d) Method

Q3. The keyword used to create a new object in java
a) class
b) new
c) object
d) create
Q4. The keyword used to declare a class in java
a) class
b) new
c) java
d) Class

Q5. A class in java is a
a) Prototype
b) Blueprint
c) Set of object
d) All of the above

Q6. Variables that are shared by every instance of a class are known as
a) class variables
b) public variables
c) local variables
d) instance variables

Q7. A java class provides encapsulation a) true
b) false
c) both a and b
d) none of the above

Q8. A primitive variable is passed from one method to another by using
a) Pass by value
b) Pass by reference
c) Call by value
d) Call by reference

Q9. An object is an instance of a
a) program
b) class
c) data

d) function

Q10. It is invoked at the time of creation of object
a) A constructor
b) Main method
c) A parameterized user defined method
d) A non-parameterized user defined
method

Q11. What best describes the purpose of a class's constructor ?
a) Names the new object
b) Initialize the fields in the object
c) Creates the object
d) checks for the space required

Q12. Attribute of an object can include information about
a) state

b) function
c) procedure
d) behaviour

Q13. Which of the following is the correct

syntax for declaring a class
a) class classname { }
b) class classname; { }
c) classname class { }
d) Class classname { }

VALUES AND DATA TYPES

Q1.The default value for data field of a boolean type is
a) false
b) true
c) null

d) space

Q2. How many characters does ASCII character-set define?

a) 100
b) 125
c) 128
d) 132

Q3. A character literal is assigned to a:

a) Char variable b) Char type literal c) String variable d) String literal

Q4. A character literal is enclosed in:

a) ' '
b) " "
c) : :
d) { }

Q5. Which of the following is a Java keyword?

a) string
b) Clas
c) continue d) If

Q6. A set of characters is assigned to:

a) String variable
b) Static variable
c) Boolean variable
d) None

Q7. The ASCII codes of upper case
alphabets range from:

a) 65 - 90
b) 60 - 85
c) 65 - 91
d) 97 – 122

Q8. Which of the following results in integer type?

a) 11.4F/3.2D
b) 13.8F/4.6F;
c) 12/3
d) none

Q9. Which of the following is non-primitive data?

a) char
b) long
c) object
d) short

Q10. Which of the following type is an exact representation of fractional values?

a) char
b) double
c) byte
d) String

Q11. Boolean Data is used to test a
particular condition i.e. true or false. Which of the following is a correct representation?

a) boolean m=true
b) boolean m='true'
c) boolean m="true"
d) none

Q12. A Java expression that contains all the elements of same data type is ___expression.

a) Single
b) Pure
c) Combined
d) Impure

Q13. Integer type value
occupies ____ bytes in the memory.

a) 1
b) 4
c) 8
d) 16

Q14. The comma, exclamation, question mark etc., are termed as _____ in Java language.

a) Keywords
b) Tokens
c) Literals
d) Blocks

Q15. In Java, the constants are also called _____.
a) Identifiers
b) Tokens
c) Keywords
d) Literals

Q16. _____ code is decimal number to represent a character.

a) Decimal
b) Binary
c) Octal
d) Hexadecimal

Q17. What is the default value of char data type?

a) /u0000
b) \u000
c) /0000
d) \u0000

Q18. What does \0 represent?

a) A value 0
b) Null data
c) Null character
d) Integer 0

Q19. Which of the following is not a valid comment?

a) //Comment
b) /* Comment */
c) /** Comment */
d) None of these

Q20. Which of the following escape sequences is used to print a black slash on the screen?

a) /back
b) \/
c) \\
d) //\

Q21. Documentation comment is called _____.

a) javadoc comment
b) javadoc
c) java documentation
d) special comment

Q22. Which of the following is a Primitive Data Type?

a) Class
b) Interface
c) Long
d) Array

OPERATORS

Q1. The statement n += 4 is equivalent to:

a) ++n
b) n=n+4
c) n+1
d) none

Q2. Which of the following can be
operands of arithmetic operators?

a) Numeric
b) Boolean
c) Characters
d) Both Numeric & Characters

Q3. 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
Q4. Decrement operator, −−, decreases the value of variable by what number?

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

Q5. Which of these statements are incorrect?
a) Assignment operators are more

efficiently implemented by Java run-time system than their equivalent long forms

b) Assignment operators run faster than their equivalent long forms
c) Assignment operators can be used only with numeric and character data type

d) None of the mentioned

Q6. What is the output of relational operators?

a) Integer
b) Boolean
c) Characters
d) Double

Q7. Which of these is returned by “greater than”, “less than” and “equal to” operators?

a) Integers
b) Floating – point numbers
c) Boolean
d) Strings
e) None of the mentioned

Q8. 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

Q9. Which of these operators can skip evaluating right hand operand?

a) !
b) |
c) &
d) &&

Q10. Which of these statements is correct?

a) true and false are numeric values 1
and 0
b) true and false are numeric values 0
and 1
c) true is any non zero value and false is 0
d) true and false are non numeric values

Q11. Which of these have highest
precedence?

a) ()
b) ++
c) *
d) -

Q12. What type of data should expression1 evaluate to in using ternary operator as in this line?

expression1? expression2: expression3

a) Integer
b) Floating – point numbers
c) Boolean
d) None of the mentioned

Q13. Which of these statements are incorrect?

a) Equal to operator has least
precedence
b) Brackets () have highest precedence
c) Division operator, /, has higher precedence than multiplication operator
d) Addition operator, +, and
subtraction operator have equal precedence
Q14. Implicit type conversion is also known as

a) Type Promotion
b) Automatic Type Conversion c) Widening Conversion
d) All of these

Q15. When a programmer has to force the conversion of a data type, it is called _____.

a) Type Conversion
b) Type Casting
c) Implicit Type-Conversion
d) Forceful Type-Conversion
e) None of these

Q16. Once the objects have been declared and the memory has been allocated, member variables and member methods can be accessed using the _____
operator.

a) new
b) dot(.)
c) obj
d) All of these

INPUT IN JAVA

Q1. A package needed to import scanner class

a) io
b) util
c) lang
d) applet

Q2. A package needed to import Stream Reader Class

a) math
b) util
c) io
d) lang
Q3. _____ is when a program is running or executing.

a) Compile Time
b) Run Time

c) Play Time
d) All of these

Q4. A method to accept decimal value through scanner object

a) Integer.parseInt(in.readLine()); b) nextDouble()
c) Double.parseDouble(in.readLine()); d) Nextdouble()

Q5. Program compiles and executes but doesn't give the desired output. Which error is this?

a) Syntax Error
b) Logical Error
c) Run-time Error

Q6. _____ keyword is used to import built-in and user-defined packages into our Java program.

a) Add
b) Import
c) import
d) importPack

Q7. Which of the following is the correct syntax to input a character through scanner class.

a) Char <variable name> = <Scanner

Object>.next().charAt(0);
b) char <variable name> = <Scanner
Object>.next(charAt(0));
c) char <variable name> = <Scanner
Object>.charAt(0).next;
d) char <variable name> = <Scanner
Object>.next().charAt(0);

Q8. Process of correcting the errors that were found
a) Error Removal

b) Testing
c) Debugging
d) Cleaning

Q9. Which of the following is an invalid Scanner class method?

a) nextString()
b) Next()
c) nextint()
d) All of these
e) None of these

MATHEMATICAL LIBRARY METHODS

Q1. Which of the following is false to find square of a number?

a) Math.pow(a,2) b) a*a
c) Math.sqrt(a,2) d) All of the above

Q2. What type of value is returned by Math.sqrt( )?

a) int
b) float
c) double d) long
e) All

Q3. Which of the following syntax is true to find the square root of a number?

a) sqrt(a)
b) Math.sqrt(a) c) Squareroot(a) d) None

Q4. Name the class that is used for different Mathematical functions. a) Math
b) Power c) Sqrt
d) None

Q5. What does math.min(a,b) do?

a) Minimizes the values of a,b b) Find the smaller between a,b c) Find the greater between a,b d) None of these

Q6. Function to round off a number is ____.

a) Math.rnd(n)
b) Math.round(n)
c) Math.roundOff(n)
d) All of these

Q7. Which function returns the absolute value of its argument. Its return type is same as the type of its arguments.

a) Math.absolute(a)
b) Maths.abss(a)
c) Math.abs(a)
d) Math.Abs(a)

Q8. What is the return type of rint method if the argument of double type?

a) int
b) double
c) long
d) Any of these

Q9. Which of the following correctly defines the Math.ceil() function?

a) Returns the smallest double value that is greater than or equal to the argument and is equal to a mathematical integer

b) Returns the largest double value that is less than or equal to the argument and is equal to a
mathematical integer.

c) Both of these
d) None of these

CONDITIONAL CONSTRUCTS

Q1. Which of the following is selection statement in java?

a) if
b) for
c) continue
d) break

Q2. Which of these statements check only for equality?

a) if
b) switch
c) if and switch
d) none of the above

Q3. Which of these statement is incorrect?

a) switch statement is more efficient than a set of nested if
b) It is possible to construct a nested switch statements
c) switch statement can only check for equality, whereas if statement can evaluate any boolean
expression
d) two case constants in the same switch can have same values

Q4. Which of the following is usually used with switch construct?

a) continue
b) exit
c) break
d) do

Q5. Which of the following is not a decision making statement?
a) switch
b) while
c) if
d) if-else

Q6. Which of the following is not a valid jump statement?

a) goto
b) continue

c) return
d) break

Q7. A switch case statement in java is a _____ control statement

a) iteration
b) selection
c) jump
d) loop

Q8. Which is the following is the
alternative to switch case in java language?

a) break, continue
b) for, while
c) if, else
d) while, do while

Q9. A switch statement accepts
_____ type of data

a) byte
b) short
c) int
d) all of the above

Q10. An if statement is also known as _____ statement

a) conditional
b) iterative
c) optional
d) unconditional

Q11. An else statement must be preceded by _____ statement in java
a) if
b) else if
c) if or else if
d) none of the above

Q12. The condition of an if statement evaluates to boolean only if the expression contains

a) logical operators
b) boolean operands
c) relational operators
d) all of the above

Q13. An if - else statement is better than a switch - case statement in which of the following scenario?

a) checking for less-than condition b) checking for more-then condition
c) checking for ranges
d) All of the above

Q14. What is the maximum number of 'else if' statements that can be present in between starting if and ending else statements?

a) 8
b) 16
c) 32
d) None

ITERATIVE CONSTRUCTS

Q1. Which of the following loop executes at least once?

a) while
b) do-while
c) for
d) nested for

Q2. How many times will the loop, for(int i=1;; i++) execute, if there is no statement to terminate the loop?
a) 0
b) 1
c) none

d) infinite

Q3. Which of the following statement allows repetitive execution of the statements?

a) for
b) while
c) do-while
d) all of the above

Q4. Using which of the following
statement, the control jumps out of the block?

a) continue
b) break
c) entry controlled loop
d) exit controlled loop

Q5. In a nested loop, which loop closes first?

a) innermost
b) outermost
c) inner and outer together
d) all of the above

Q6. A for loop which doesn't include any statement in its body is known as

a) null loop
b) infinite loop
c) entry controlled loop
d) exit controlled loop

Q7. for (;;) is the syntax for which loop?

a) Null Loop
b) Infinite Loop
c) Empty Loop
d) Zero Loop

Q8. Which of the following loop executes at least once?
a) for
b) do-while
c) Entry-Control Loop
d) Both a,b
e) Both b,c

Q9. How many loops does a nested loop contain?

a) 0
b) 1
c) 2
d) None of these is correct

Q10. _____ statement terminates a switch-case statement as well as a loop.

a) break
b) continue
c) jump
d) All of these

Q11. Termination of _____ loop takes place before ____ loop.

a) inner, outer
b) outer, inner
c) larger, smaller
d) smaller, larger

Q12. _____ break is used to terminate an outer loop.

a) Outer
b) Labelled
c) Inner
d) None of these

Q13. Curly Brackets are optional while writing the body of the loop.
True/False.

a) True
b) False
c) May be

Q14. Which of the following segments can be omitted in a for loop?

a) Initialisation
b) Test Condition
c) Updation
d) All of these

Q15. Which of these is a jump statement?

a) Break
b) Continue
c) Return
d) All of these

Q16. The _____ statement skips the rest of the current iteration of the loop and jumps back to the beginning of the loop and continues with the next iteration.

a) Break
b) Next
c) Continue
d) None of these

Q17. Which if these is not a basic building block offered by Java to write computer programs?

a) Sequencing
b) Method Building
c) Iterating
d) Selection

USER-DEFINED METHODS

Q1. Methods are not known as

a) Functions
b) Procedures
c) Sub-Programs
d) Sub-Classes

Q2. Functions help in _____ . a) Code Reusability
b) Easier Debugging
c) Understanding codes' flow of

control
d) Improving readability of code e) All of these

Q3. The first line of the method definition is called
a) Method definition

b) Method heading
c) Method header
d) Method description

Q4. _____ is a part of Method Prototype.
a) Return Type
b) Method Name
c) Parameter-List
d) All of these
e) None of these
Q5. Parameters are given inside _____
brackets.
a) ( )
b) { }
c) [ ]
d) " "
Q6. A method can return _____. a) Any number of values
b) 1 value
c) 2 values
d) At most 5 values
Q7. After the execution of the return
statement, the remaining statements
_____.

a) Execute all at once
b) Do not execute
c) Execute as usual
d) None of these

Q8. The parameters appearing in the method definition are called _____ parameters and the parameters appearing in the method invocation are called _____ parameters.

a) Actual, Formal
b) Actual, Dummy
c) Formal, Dummy
d) Dummy, Actual

Q9. After the execution of all the statements in the method body, the control transfers back to the _____. a) Return Statement
b) Method Header
c) Calling Statement
d) Parameter-List

Q10. _____ types of arguments can be passed to Java Method.

a) 2
b) 3
c) 4
d) Infinite

Q11. Any change in the formal parameter values does not reflect in the actual parameter, when the values are called by _____.

a) Value
b) Reference
c) None of these

Q12. Pass by Value is also called:

a) Pass by Data
b) Call by Value
c) Call by Data
d) Call by Reference

Q13. The reference of actual parameters is passed to the formal parameters, when _____ data types are passed.

a) Reference
b) Non- Primitive
c) Primitive
d) Both (a), (b)
e) Both (b), (c)

Q14. In Call by Reference, the method works on a copy of the variables. True/False.

a) True
b) False
Q15. On passing String by Pass by
Reference, the String can _____.

a) Can be changed
b) Can not be changed c) Depends on the String Q16. _____ methods change the original state of an object, where as _____ do not.
Q22. _____ invocation is when there are two or more possible matches of an overloaded procedure.

a) Impure, Pure Methods
b) Pure Methods, Impure Methods c) Original, Fake
d) Impure, Clean Method

Q17. Pure methods _____ value when same arguments are passed.

a) Return Different
b) Do not return Same
c) Return Same
d) All of these

Q18. Non-static Methods are created _____ keyword in their method header. a) Complex
b) Ambiguous
c) Ambious

d) Multiple

Q23. Chose the correct prototype for a procedure named input that take two String parameters but does not return any value.

a) String input(String a, String b) b) public input(a,b)
c) void input(a,b)
d) void input(String s1,String s2)

a) With
b) With Static
c) Without Static
d) None of these

Q19. public static void names(parameterlist) is the Function-Header for:

a) Non-returning Non-static Method b) Static and Non-returning Method c) Static returning Method
d) None of these

Q20. The process of defining two or more methods with same name but different signatures in a class is called _____.

a) Function Overwriting
b) Method Overloading
c) Method Recreation
d) Function Loading

Q21. Function Overloading uses the concept of:

a) Inheritance b) Abstraction c) Encapsulation d) Polymorphism

CONSTRUCTORS

Q1. A constructor is a member-method used to initialize the _____ variables.

a) Class

b) Instance
c) -
d) None of these

Q2. What is the return type of the
constructor method?

a) void
b) int
c) no return type
d) Can vary

Q3. The _____ constructor neither has any arguments nor does it contain any statements.

a) Non-Parameterised
b) Parameterised
c) Default
d) Both (b), (c)
e) Both (a),(c)
Q4. If a class is without a constructor, default constructor is automatically included by _____.

a) Blue J
b) Java Interpreter
c) JIT
d) Java Compiler

Q5. A _____ Constructor is a constructor with arguments.

a) Default
b) Parameterized
c) Non-Parameterized
d) Empty

Q6. Unlike Methods, Constructors can’t be overloaded. True/False.
a) True
b) False

Q7. Within a constructor or a method, _____ is a reference to the current object- the object whose constructor or method is invoked.

a) Current
b) New
c) This
d) Final

Q8. Execution of at least one constructor is mandatory when an object of the class is created. True /False.

a) True
b) False

Q1. What will be the output of the given code snippet?

```
int a=10,b=5;
a = ++b * a - ++a;
System.out.print(a+","+b);
```

a) 48,5
b) 48,6
c) 49,6
d) 49,5

Q2. *S= ++a + b-- + a++ + b*
What is the value of S when a=4 and b=6?

a) 22
b) 21
c) 23
d) 19

Q3. *S+=a++ + ++b – a*
What will be the value of a=9 ,b=6 and S=1?

a) 7
b) 8
c) 9
d) 10

Q4. *int m=5, p=0,n=0;*
p=m-- + --n;

What will the value stored in p after the execution of the following lines of code?

a) 4
b) 5
c) 6
d) 3

Q5. *int i=0;*
i = i++ - --i + ++i - i--;

What will be the final value of i? a) -1
b) 0
c) 1
d) None of these

Q6. Predict the output of the following code snippet.
int i=1, j=2, k=3;

```
int m = i-- - j-- - k--;
System.out.println("i="+i);
System.out.println("j="+j);
System.out.println("k="+k);
System.out.println("m="+m);
```

a) i=1
j=0
k=2
m=-4

b) i=0
j=2
k=-4
m=2

c) i=0
j=1
k=2
m=-4

Q7. What will be the output of the following code?

```
x=6;y= ‘6’;
check=x==y? ‘T’ : ‘F’;
System.out.print((int)check);
```

a) T
b) F
c) 70
d) 84

Q8. Seeing the code snippet given below answer the following questions:

```
char ch='A';
int a=ch+32;
System.out.print((char)a);
```

1. What is the output of the above code?
a) A32
b) 97
c) A
d) a

2. What would have been the output if there was no (char) in the print statement?

a) a
b) 97
c) 65
d) A

Q9. What will be the answer of
Math.round(Math.abs(Math.ceil(-4.4)))

a) 4
b) 4.0
c) -5
d) 5

Q10.
```
switch(ch) {
case '1':

ch++;break;
case '2':

++ch;
case '3':
ch--;break;
case '4':
--ch;
default:
ch='0';
}
System.out.print(ch);
```

The code above is of a menu-driven program. Predict the code snippet's output if the value of ch is:

1. '1'
a) 0
b) 1
c) 2
d) 3
e) 4
2. '2'
a) 0
b) 1
c) 2
d) 3
e) 4
3. '4'
a) 0
b) 1
c) 2
d) 3
e) 4
4. '6'
a) 0
b) 1
c) 2
d) 3
e) 4

Q11. *switch(n) {*
case 1:
System.out.print("ONE");
if(n!=0)System.out.print("TWO");
break;
case 2:
System.out.print("THREE");
case 3:
System.out.print("THREE"+n);

default:
System.out.print("HUNDRED"+n+100); }

What will be the output of the above codesnippet if the value of n is:

1. 1
a) ONE
b) TWO
c) ONETWO d) TWOONE

2. 3
a) THREE3HUNDRED3100 b) THREE3
c) ThREE3
d) THREE3HUNDRED103

3. 5
a) HUNDRED5
b) HuNDRED5100 c) HUNDReD105
d) HUNDRED5100

Q12. Given below is a code snippet. *switch (ch)*
{
case 1:
*System.out.print(ch*ch);*
case 2:
*System.out.print(ch*ch*ch);*
case 3:
*System.out.print(ch++*ch);*
default:
System.out.print(ch+--ch);
}
Predict its output if:

1. ch=2
a) 8
b) 86
c) 865
d) 2

2. ch=4
a) 6
b) 7
c) 8
d) None of these

Q13. Look at the code given below and answer the questions that follow:

```
int iteration=0,limit=20;
while(iteration<limit)
{
System.out.print(iteration%5==0?'O'+1:'X'); iteration++;
}
```

1. How many times will this loop execute?
a) 18
b) 19
c) 20
d) None of these

2. Predict the output of above code. a) 19 times O
b) 16 times X 4 times O
c) 20 times P
d) 16 times X 4 times P

3. What will be the final value of limit after the execution of the above code?'
a) 0
b) 5
c) 19
d) None of these

Q14. The program given below check if a number is palindrome. Fill in the blanks with appropriate statements.

class name: palinDrome
variables: no-To input the number from user using scanner
i-For executing the loop
rev- To reverse the number
dig- To extract the digits

****A number is said to be Palindrome if digits of the number when reversed give the same number,eg. 121

```
import java.util.*;
class (1)_____

{ public static (2)_____ main() {
Scanner sc=new Scanner(System.in); int no,i,rev=0,dig;
System.out.print("Enter a number"); no=sc.nextInt();
for(i=no;i!=0;i=(3)_____)
{ dig=i%10;

rev=(4)_____
}
if(rev (5)_____ no)

System.out.print(no+" is Palindrome");

} }
```

1. a) palindrome
b) Palindrome
c) PalinDrome
d) palinDrome

2. a) int
b) double
c) void
d) String

3. a) i++
b) i/10
c) i*2
d) i%10

4. a) rev*10+dig
b) r*dig+10
c) dig-rev*10
d)rev=rev*10+dig

5. a) !=
b) >
c) ==
d) <=

Q15. Given below is the code for printing Fibbonacci Series upto n terms. Fill in the blanks appropriately.

class fib
{
pubic static void main(int n) {
int a=0,b=1,c=(1)_____; System.out.print(a+" "); System.out.print(b+" ");
for(int i=1;i<=(2)____;i++) {c=a+b;
System.out.print(c+" "); a=b;
(3)_____
}
}
}

1. a) 0
b) 1
c) 2
d) -1

2. a) n
b) n+1
c) n-1
d) n-2

3. a) b=a;
b) b=c
c) b=c;
d) c=b

Q16. Predict the output of the code-snippet given below:
for(int i=0;i<10;i++);
System.out.print(++i);
a) 12345678910

b) 11
c) 0123456789
d) Error

Q17. Predict the output of the below code: *for(i=5;i>=1;i--)*
```
{
if(i%2==1)
continue;
}
System.out.print(i+" ");
}
```

a) -1
b) 0
c) 1
d) 2
e) None of these.

Q18. Predict the output of the code given below:

```
for(i='a';i<'z';i++);
for(j=0;j<=(int)i;j++);
System.out.print(i+j);
```

a) zz
b) z
c) 244
d) 245

Q19. Looking at the code given below, answer the questions that follow:

```
int func(int n)
{
int c=0;
for(int i=1;i<=n;i++)
{
if(i==n)break;
if(n%i>-1 && n%i<1)c++; }
```

return c;
}

1. What will be the final value of if n=6?
a) 5
b) 6
c) 7
d) 8

2. What will this function return if the value of n=12?
a) 4
b) 5
c) 6
d) 12

3. What is the purpose of the function func?
a) To calculate the factorial of n. b) To check if the number is prime. c) To count all the no. of factors of

n.
d) To count the no. of factors of n
from 1 to n-1.

Q20. Given below is the code to check whether a number is harshad or not. A harshad number is divisible by the sum of its digits(Example-81).Fill in the blanks labelled 1,2,3 correctly.

Class name: harshad
Member Methods: main()- To check if the number is harshad.
Variable: no-To input the number from user by Scanner
i-To execute the loop
dig- To extract the digits of the number
sum- To calculate the sum of digits of the number

import java.util.;*
class harshad

{ public static void main() {
Scanner sc=new (1)_____(System.in); int no,i,dig,sum=0;

System.out.println("Enter a

```
number");
no=sc.nextInt();
for(i=no;i(2)_____0;i=i/10) { dig=(3)____%10;
sum=sum+dig; }
if(no%sum==0)
System.out.println(no+" is harshad/niven");
else
System.out.println(no+" is not harshad/niven");
}
}
```

1. a) scanner b) sc
c) Scanner d) Scaner

2. a) ==
b) <
c) !=
d) >

3. a)dig
b) i
c) sum
d) no

Q21. Look at the code given below and answer the questions that follow:

```
int c=0,i;
System.out.print(++c);
for(i=0;i<12;i++)
c++;
System.out.print("The answer is "+c+1);
```

1. How many times will this code execute?
a) 10
b) 11
c) 12
d) 0

2. Predict the output of the code. a) 0The answer is 12 b) 1The answer is 121
c) 0The answer is13 d) 1The answer is 131

3. What will be the final value of i? a) 11
b) 12
c) 13
d) None of these
4. The value of c at the first print statement would be
a) Pre incremented
b) Post decremented c) Pre decremented d) Post incremented

Q22. Look at the code given below and answer the questions that follow:

```
int prod;
for(int i=0;i<5;i++)
{
prod=1;
for(int j=1;j<=i;j++)
prod*=j;
System.out.print(prod+"\t"); }
```

1. What is the final value of i? a) 4.0
b) 5
c) 6
d) 5.0

2. What is the use of “\t” in the above code?
a) It gives 2 spaces.
b) It gives a tab space.
c) It gives a new line.
d) It clears the screen.

3. What is the output of the above code?
a) 1 1 2 6 24
b) 112624
c) 0 1 2 6 24
d) 012624

4. How many times will the j-loop execute?
a) 9
b) 10
c) 11
d) 12

Q23. *for(int i=1;i<=5;i=i*i)*
{
System.out.print(i);
}

1. How many times will the above loop execute?
a) 0
b) 3
c) 5
d) ∞

2. What will be the final value of i? a) 1
b) 3
c) 5
d) 25

Q24. Look at the below code snippet and answer the following questions:

```
int c=0;
for(int i=2;i<20;i++)
{
if(!(i%4==0))
c++;
}
System.out.print(c);
```

1. What is the purpose of variable c? a) To count the number of multiples of 4 between 1 and 20.

b) To count the number of nonmultiples of 4 between 1 and 20.

c) To count the number of multiples of 4 from 1 to 20.

d) To count the number of nonmultiples of 4 between 2 and 20.

(HINT ‘between’ here means exclusive of the end-points)

2. Predict the output of the code. a) 5
b) 8
c) 14
d) 15
3. What is the purpose of ! in the ifcondition?
a) To check if the condition within brackets is true. b) To check if the condition within the brackets is false. c) None of these.
4. What could be an alternative way to write code snippet’s if-statement? a) IF(!(i%4==0))
b) if(i/4=0)
c) if(i%4!=0)
d) if!(i/4==0)

Q25. Looking at the code given below, answer the questions that follow:

```
int c=0;
for(int i=1;i<=n;i++)
{
c=(n%i==0)?(c+1):c;
}
```

1. What will be the value of c if n=6? a) 0
b) 1
c) 4
d) 6
2. Which of these best defines the variable c?
a) Counter Variable
b) Accumulator Variable c) Increment Variable
d) Counter and Accumulator Variable
3. How many times will the loop execute if the value of n is -2? a) -2
b) -1
c) 0
d) 1
4. Which of these is not a correct alternative form for the body of the loop?

a) if(n%i==0)c+=1;
b) if(n%i==0){c=c+1;}
c) if(n%i==0){c++};
d) if(n%i==)c++;
Q26. Looking at the given below, answer the following:

```
int i=-1,s=0;
do
{
s+=i;
i++;
}
while(i>0);
System.out.print(s);
```

1. What kind of loop if used in the above code?
a) Entry-Control Loop
b) Exit-Control Loop
c) Post-Tested Loop
d) Both option (b) and (c) e) Both option (b) and (d)

2. Irrespective of what the value of i is ,the above loop will execute at least how many time?

a) -1
b) 0
c) 1
d) 2

3. What will be the final value of i? a) -2
b) -1
c) 0
d) 1
4. Predict the output of the above code snippet.
a) -2
b) -1
c) 0
d) 1

e) 2

Q27. See the code given below and answer the questions that follow:

```
int i=1,j=1;
for(int i=1;i<=5;i++) {
for(int j=1;j<=i;j++) {
System.out.print(j); if(j%2==0)
break;
}
System.out.print("\n"); }
```

1. Predict the output of the above code.
a) 1\n12\n12\n12\n12\n b) 1

12
12
12
12
c) 1
12
123
1234
12345
d) 1
12
e) 1\n12
2. What is an alternative form of the print statement containing \n? a) System.out.print(“/n”); b) System.out.println(“n”); c) System.out.print(“\new”); d) All of these
e) None of these
3. What will be the value of j outside the two loops?
a) 0
b) 1
c) 2
d) 3
e) 5

Q28. The following program is based on the specification given below. Fill in the blanks with appropriate java statements.

class name : telephone

member variables : int noc [number of calls] double bill [telephone bill to be paid] String n [name of the customer]

Member methods : void input ( ) – to accept the data using the scanner class
void print() – to print the details

void calculate () – to calculate the telephone bill as per the following criteria based on number of calls
Number of calls Rate per call

First 100 calls free
Above 100 callsRs.2.50
void main ( ) – to create an object of the class and invoke the functions of the class

class (1)_____
{ int noc; double bill ; String n;

Scanner ob = (2)_____
Scanner(System.in);
void input( )
{ System.out.println("Enter Number of calls");

noc = (3)_____;
System.out.println("Enter name "); n=ob.next(); }
void calculate()

{ if ((4)_____)
bill =0;
else bill =
(5)_____;

}
void print()
{ System.out.println("Name = "+n);

System.out.println("Amount to be paid="+bill);

}

void main ()
{ telephone t = new telephone(); t.input();

(6)_____;
t.print();
}
}

1. a) telephone
b) class
c) object

2. a) old
b) new
c) void

3. a) ob.nextDouble()
b) ob.nextLine()
c) ob.nextInt()

4. a) noc<100
b) noc< = 100
c) noc > 100

5. a) bill=0+(noc-100)*2.50 b) bill = (noc-100)*3.50 c) bill = noc*2.50

6. a) t.input()
b) t.calculate()
c) t.print()

Q29. The function given below is performing a specific task.

int func(int n)
{
do{
n/=10;
return n%10 ;
}

```
while(n!=0);
}
```
Answer the questions that follow:

1. What will the loop return if n=0? a) ∞
b) 0
c) ‘0’
d) 0/0

2. What will the loop return if n=462? a) 4
b) 6
c) 2
d) 0
3. At most how many times will this loop execute?
a) Depends on the number of digits b) 0
c) 1
d) 16
4. What is the access specifier of the function func?
a) public
b) private
c) default
d) protected

Q30. Given below is a code snippet. Look at the code and answer the question that follow:

```
int something(int n)
{
int i=1,f=1;
for(;i<=n;f*=i,i++);
return f; }
```

1. What will the function something return if n=5?
a) 1
b) 24
c) 120
d) 720

2. What will be the final value of i if n=0?
a) 0
b) 1
c) 2
d) None of these

Q31. Seeing the code given below ,answer the questions that follow:

```
class ques
{

String sum(String one,String two){return one+" "+two;}
int sum(int one,int two){return one+two;} long sum(int one,int two,int three)
{return one+two+three;}

void main(){
System.out.print(sum(1,3,5));
System.out.print(sum("Hello","Java")); }
}
```

1. What will be the output when the main method is invoked?
a) 9
b) 9HelloJava
c) Hello Java
d) 9Hello Java

2. What type of data will the sum function defined in the above code with 3 parameters return?

a) String
b) int
c) short
d) None of these

Q32. Which of the following code will print the area of a square?

a) void area(double side)
{ double a =4*side;

System.out.println("Area"+a);
}
b) void area(double side)
{ double a= side*side;
System.out.println("Area"+a);
}
c) void area(double side1, double side2) { double a= side1*side2;
System.out.println("Area"+a);
}
d) None of the above

Q33. Fill in the blanks with appropriate code for proper working of the function arm(). The function will receive a number and check whether the number is an Armstrong number or not and display message accordingly.

(Armstrong Number is a number whose sum of cubes of the digits is equal to the number Ex 153-13+53+33)

class Armstrong
{
public void arm(int num)
{
Temp=num;
sum=0;
while(num>0){
d=(1)_____ %10;
cube=Math.pow((2)____,3);
sum=sum+(3)___;
num=num/(4)____;
}
(5)_____(sum==(6)____)
System.out.println("Armstrong"); else
System.out.println("Not Armstrong"); }
}

1. a) sum b) num c) d
2. a) d b) sum c) pow
3. a) num b) d c) cube

4. a) 9 b)10 c)100
5. a) for b) while c) if
6. a) temp b) Temp c) n Q34. *class B*
{ int b=20;
B() {
b=40; }
void main()
{ B b1=new B();
System.out.print(b1.b-8);
} }
What will be the output of the above code?

a) 20
b) 40
c) 12
d) 32

Q35. Predict the output for the program given below:

class Profile
{
String name;int age;
Profile()
{
name="User";
age=15;
}
void display()
{

System.out.println("Hi "+ name+"! This is your profile:");

name="Raj";
System.out.print(name+","+age);
}
public static void main()
{
Profile p1=new Profile();

```
p1.display();
}
}
```

a) Hi User! This is your profile:

User,15
b) Hi User! This is your profile: Raj,15 c) Hi User! This is your profile:

Raj,15
d) Hi User! This is your profile: User,15

Q36. Predict the output of the below code:

```
class ques
{
int a,b,c;
ques(int A,int B)
{
a=A;
b=B;
c=0;
}
void calc()
{
c=a+b;
}
void display()
{

System.out.print("Sum of "+a+" and "+b+" is "+c);

}
public static void main()
{
ques q1=new ques(0,1);
ques q2=new ques(3,6);
q1.calc();
q2.calc();
q2.display(); q1.display(); }
```

}

a) Sum of 0 and 1 is 1Sum of 3 and 6 is 9
b) Sum of 3 and 6 is 9
c) Sum of 0 and 1 is 1 Sum of 3 and 6 is 9
d) Sum of 3 and 6 is 9Sum of 0 and 1 is 1

Q37.

```
class prints
{
prints(int price)
{

System.out.print("Price is in integer: "+price);

}
prints(float price)
{

System.out.print("Price is in decimal: "+Math.round(price));

}
public static void main()
{
prints p=new prints(4.5f);
}
}
```

What will be the output of the above code when the main method is invoked?

a) Price is in decimal 4
b) Price is in decimal 5
c) Price is in decimal: 5
d) Price id in integer: 4

Q38. Look at the code given below and answer the questions that follow:

```
class User
```

```
{
String n;
int m1,m2,m3,sum;
double avg;
User(){
n="";
m1=0;
m2=0;
m3=0;
sum=0;
avg=0.0;
}
void input()
{
n="Riya";
m1=40;
m2=55;
m3=46;
}
void calc()
{
sum=m1+m2+m3;
avg=sum/3;
}
void display() Priya,40,55,46 {
```

141,47.0 d) None of these

```
System.out.println(n+","+m1+","+m2+","+m3);

calc();
System.out.println(sum+”,”+avg);
}
public static void main()
{
User one=new User();
one.display(); //1
one.input();
```

one.display(); //2
}
}

1. What value will the calc function return after calling input function? a) 47
b) 47.0
c) 0.0
d) 48

2. What will be the value of sum before input method is invoked? a) 0
b) 141
c) 141.0
d) 142

3. Predict the output.
a) ,0,0,0
0,0.0
Priya,40,55,46
141, 47.0

b) Priya.40.55.46
141.0,47.0
c) Priya,40,55,46
141,47.0

THEORITICAL QUESTIONS

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ABOUT THE BOOK

This book is made keeping in mind the Syllabus specified by the council and the specimen paper issued by CISCE for ICSE Class 10 Computer Applications examination for Semester Examinations(to be held in 2021).

This book contains one of the largest pools of Multiple Choice Questions for ICSE Class 10 Computer Applications Semester 1 Examination.

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