

Worksheet

1

Name:

Roll No: Class: Section:

Date:

ENCAPSULATION AND INHERITANCE

Chapter-14

1. Tick (✓) the correct option.

- (a) The class that is being inherited or subclassed is called
- | | | | |
|-------------------|--------------------------|------------------------|--------------------------|
| (i) Subclass | <input type="checkbox"/> | (ii) Superclass | <input type="checkbox"/> |
| (iii) Inheritance | <input type="checkbox"/> | (iv) None of the above | <input type="checkbox"/> |
- (b) Java language supports type of inheritance
- | | | | |
|--------------------------|--------------------------|------------------------------|--------------------------|
| (i) Multiple Inheritance | <input type="checkbox"/> | (ii) Multi-Level Inheritance | <input type="checkbox"/> |
| (iii) Single inheritance | <input type="checkbox"/> | (iv) Hybrid inheritance | <input type="checkbox"/> |
- (c) In a Multi-Level Inheritance in Java, the last subclass inherits methods and properties of
- | | | | |
|-----------------------------------|--------------------------|---------------------------|--------------------------|
| (i) Only one immediate Superclass | <input type="checkbox"/> | (ii) Few classes above it | <input type="checkbox"/> |
| (iii) All classes above it | <input type="checkbox"/> | (iv) none of these | <input type="checkbox"/> |
- (d) When a Class inherits two superclasses (not in Java), it is called inheritance.
- | | | | |
|----------------------------|--------------------------|-------------------------------|--------------------------|
| (i) Multilevel | <input type="checkbox"/> | (ii) Single Inheritance | <input type="checkbox"/> |
| (iii) Multiple Inheritance | <input type="checkbox"/> | (iv) Hierarchical inheritance | <input type="checkbox"/> |
- (e) Which is the keyword used to implement inheritance in Java?
- | | | | |
|-------------------|--------------------------|--------------------|--------------------------|
| (i) extends | <input type="checkbox"/> | (ii) implements | <input type="checkbox"/> |
| (iii) instance of | <input type="checkbox"/> | (iv) none of these | <input type="checkbox"/> |

2. Write a program by using a class with the following specifications.

- (a) **Class name** — prime_number

Data members — int num

Member functions:

- void input() — to input a number
- void isprime() — to check and display whether the number is prime or not

Use the main function to create an object and call member methods of the class.

- (b) **Class name** — Factorial

Data members —int num

Member functions:

- void input() — to input a number
- void fact() — to find and print the factorial of the number

Use the main function to create an object and call member methods of the class.