### ****e) PHP Concepts**** (6 marks)

**i. What is the primary purpose of the** abstract **keyword in PHP?**

* The abstract keyword is used to define **abstract classes and methods**.
* An abstract class **cannot be instantiated** directly.
* Abstract methods **must be implemented** in the child (subclass).
* Purpose: Provides a **base structure** that enforces implementation of certain methods in subclasses.

**ii. Define a trait in PHP.**

* A **trait** is a mechanism in PHP that allows **code reuse** in multiple classes.
* Traits help avoid duplication and overcome the limitation of **single inheritance** in PHP.
* Traits contain methods that can be **“injected”** into classes.

**iii. What is the purpose of the** \_**\_autoload() function in PHP?**

* The \_\_autoload() function is triggered when a class is **not yet defined** but is called in code.
* It automatically includes the file containing that class definition.
* Helps in **lazy loading** classes without manually including them.

### ****a) Write PHP code to connect your webpage to your MySQL database.****

<?php

$servername = "localhost";

$username = "root";

$password = "";

$dbname = "worldcup";

**// Create connection**

$conn = new mysqli($servername, $username, $password, $dbname);

**// Check connection**

if ($conn->connect\_error) {

die("Connection failed: " . $conn->connect\_error);

}echo "Connected successfully!";

?>