**1.Explain for loop.**

A **for** loop is a repetition control structure that allows you to efficiently write a loop that needs to execute a specific number of times.

Syntax:

for (initialization; condition; inc/dec)

**2.What is a pointer ?**

ans)A pointer is a variable that stores the memory address of another variable as its value

**3.Apply BODMAS rule for the following.**

a) $a=20,$b=10,$c=15,$d=5,$e=0

e=(a+b)\*c/d

echo(int(e)) ans)90

e=((a+b)\*c)/d

echo(int(e)) ans)90

e=(a+b)\*(c/d)

echo(e) ans)90

e=a+(b\*c)/d

echo(e) ans)50

**4.Output the following**

var x="world";

function index ()

{

x="Hai";

echo(x);

index ()

}

echo(x);

ans) Haiworld

**5) Explain Tokens?**

ans)

* + - Identifiers.
    - Keywords.
    - Constants.
    - Operators.
    - Special Characters.
    - Strings.

**6.Differentiate between local variable and global variable?**

ans) Local variables can be used only by statements that are inside that function or block of code. Local variables are not known to functions on their own. Global variables are defined outside of all the functions, usually on top of the program. The global variables will hold their value throughout the lifetime of your program. A global variable can be accessed by any function.

**7.What are the constraints in SQL?**

Ans) NOT NULL, UNIQUE, PRIMARY KEY, FOREIGN KEY, CHECK, DEFAULT

**8.What is UNIQUE constraint?**

Ans) The UNIQUE constraint ensures that all values in a column are different

**9.Differentiate between DDL and DML.**

Ans) Data Definition Language- CREATE, DELETE, ALTER, TRUNCATE, DROP, RENAME

Data Manipulation Language-INSERT, SELECT, UPDATE

**10.A procedure that calls itself is called**

A - illegal call

B - reverse polish

C - recursive

D - none of the above

Ans) Recursion

**11) Which are the 4 functions in C for memory allocation ?**

Ans) malloc(), calloc(), realloc(), free()

**12) How array values are indexed ?**

Ans) indexed from 0 onwards

**13)What is OOPS Concepts?**

Ans) Object-oriented programming is a programming model organized around Object rather than the actions and data rather **than logic**.

**Class**

A class is an entity that determines how an object will behave and what the object will contain. In other words, it is a blueprint or a set of instruction to build a specific type of object.

In PHP, declare a class using the class keyword, followed by the name of the class and a set of curly braces ({}).

**Syntax of class:**

1. <?php
2. **class** MyClass  s
3. {
4. // Class properties and methods go here
5. }
6. ?>

**Object**

A class defines an individual instance of the data structure. We define a class once and then make many objects that belong to it. Objects are also known as an instance.

An object is something that can perform a set of related activities.

**Syntax of Object**

1. <?php
2. **class** MyClass
3. {
4. // Class properties and methods go here
5. }
6. $obj = **new** MyClass;
7. var\_dump($obj);
8. ?>

**14.What is Session?**

**Ans)** In general, session refers to a frame of communication between two mediums. A PHP session is used to store data on a server rather than the computer of the user. Session identifiers or SID is a unique number which is used to identify every user in a session-based environment.

**15.What is Cookie?**

**Ans)** Cookies are text files stored on the client computer and they are kept of use tracking purpose. PHP transparently supports HTTP cookies.

There are three steps involved in identifying returning users −

* Server script sends a set of cookies to the browser. For example, name, age, or identification number etc.
* Browser stores this information on local machine for future use.
* When next time browser sends any request to web server then it sends those cookies information to the server and server uses that information to identify the user.

**16.** **What is the difference between DELETE and TRUNCATE commands in SQL?**

**Ans)** **DELETE**is a DML (Data Manipulation Language) command and is used when we specify the row(tuple) that we want to remove or delete from the table or relation. The DELETE command can contain a WHERE clause. If the **WHERE** clause is used with the DELETE command then it removes or deletes only those rows(tuple) that satisfy the condition otherwise by default it removes all the tuples(rows) from the table.

**Syntax:**DELETE command

DELETE FROM TableName WHERE condition;

**TRUNCATE**is a DDL (Data Definition Language) command and is used to delete all the rows or tuples from a table. Unlike the DELETE command, the TRUNCATE command does not contain a WHERE clause. In the TRUNCATE command, the transaction log for each deleted data page is not recorded. Unlike the DELETE command, the TRUNCATE command is fast. We cannot roll back the data after using the TRUNCATE command.

**Syntax:**TRUNCATE command

TRUNCATE TABLE TableName;

17. **What is primary key?**

**Ans)** A primary key is a field in a table which uniquely identifies each row/record in a database table. Primary keys must contain unique values. A primary key column cannot have NULL values.

A table can have only one primary key, which may consist of single or multiple fields. When multiple fields are used as a primary key, they are called a composite key.

**18.What is foreign key?**

A foreign key is a key used to link two tables together. This is sometimes also called as a referencing key.

A Foreign Key is a column or a combination of columns whose values match a Primary Key in a different table.

**19. Check the number is Even or not without using loop?**

Ans) $number = 10;+

//Get the remainder of our number divided by 2.

$remainder = $number % 2;

//If the remainder is 0, then it means

//that the number is even.

if ($remainder == 0) {

echo $number. ' Is even!';

}

**20. Check the given number is odd or not without using loop**

$number = 3;

//Get the remainder.

$remainder = $number % 2;

//If the remainder is NOT 0, then

//it is an odd number.

If ($remainder! = 0) {

echo $number. ' Is odd!';

}

**21.** **Check the given number is even or odd using foreach loop**

Ans)

foreach(range(1, 20) as $number){

//Check whether the number inside

//our loop is odd or even.

if(($number % 2) == 0){

echo "$number is even!<br>";

} else{

echo "$number is odd!<br>";

}

}

22. **Check the given number is even or odd using for loop**

Ans)

for($i = 0; $i < 10; $i++) {

if($i % 2) {

echo "$i is even<br />";

}

else {

echo "$i is odd<br />";

}

}

23. **swapping without usinsg temp variable**

<?php

$num1 = readline("Enter the first number: ");

$num2 = readline("Enter the second number: ");

echo "Before Swapping \n First Number = $num1 \n Second Number = $num2 \n";

$num1 = $num1 + $num2;

$num2 = $num1 - $num2;

$num1 = $num1 - $num2;

echo "After Swapping \n First Number = $num1 \n Second Number = $num2";

?>

OUTPUT

Enter the first number: 55

Enter the second number: 67

Before Swapping

First Number = 55

Second Number = 67

After Swapping

First Number = 67

Second Number = 55

**24. pattern printing**

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\* \* \*

\* \* \* \*

\* \* \* \* \*

Ans)

<?php

function pypart($n)

{

for ($i = 0; $i < $n; $i++)

{

// inner loop to handle

// number of columns

// values changing acc.

// to outer loop

for($j = 0; $j <= $i; $j++ )

{

// Printing stars

echo "\* ";

}

// ending line after

// each row

echo "\n";

}

}

// Driver Code

$n = 5;

pypart($n);

?>

**25. Print Pattern**

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Ans) <?php

// PHP implementation to print

// circle pattern

// Function to print circle pattern

function printPattern($radius)

{

// dist represents distance

// to the center

$dist = 0.0;

// for horizontal movement

for ($i = 0; $i <= 2 \* $radius; $i++)

{

// for vertical movement

for ($j = 0; $j <= 2 \* $radius; $j++)

{

$dist = sqrt(($i - $radius) \*

($i - $radius) +

($j - $radius) \*

($j - $radius));

// dist should be in the range

// (radius - 0.5) and (radius + 0.5)

// to print stars(\*)

if ($dist > $radius - 0.5 &&

$dist < $radius + 0.5)

echo "\*";

else

echo " ";

}

echo "\n";

}

}

// Driver Code

$radius = 6;

printPattern($radius);

?>

**26. Print Pattern**

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\* \* \* \* \*

Ans)

<?php

$size = 5;

for($i=1;$i<=$size;$i++){

for($j=1;$j<=$size-$i;$j++){

echo "&nbsp;&nbsp;";

}

for($k=1;$k<=$i;$k++){

echo "\*&nbsp;&nbsp;";

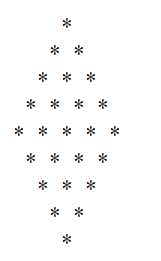
}

echo "<br />";

}

?>

**27. Print Pattern**



<?php

for($i=0;$i<=5;$i++)

{

for($k=5;$k>=$i;$k--)

{

echo "  ";

}

for($j=1;$j<=$i;$j++)

{

echo "\*  ";

}

echo "<br>";

}

for($i=4;$i>=1;$i--)

{

for($k=5;$k>=$i;$k--)

{

echo "  ";

}

for($j=1;$j<=$i;$j++)

{

echo "\*  ";

}

echo "<br>";

}

?>

28.**Print Amstrong number**

Ans)

<?php

$num = readline("Enter the number: ");

$total = 0;

$x = $num;

while ($x != 0) {

$rem = $x % 10;

$total = $total + $rem \* $rem \* $rem;

$x = $x / 10;

}

if ($num == $total) {

echo "Yes $num is an Armstrong number";

} else {

echo "No $num is not an armstrong number";

}

?>

output

Enter the number: 407

Yes 407 is an Armstrong number

**29.Factorial in php**

Ans)

1. <?php
2. $num = 4;
3. $factorial = 1;
4. **for** ($x=$num; $x>=1; $x--) ji
5. {
6. $factorial = $factorial \* $x;
7. }
8. echo "Factorial of $num is $factorial";
9. ?>

**30.Fibonacci series using Recursion**

Ans) <?php

// PHP code to get the Fibonacci series

// Recursive function for fibonacci series.

function Fibonacci($number){

// if and else if to generate first two numbers

if ($number == 0)

return 0;

else if ($number == 1)

return 1;

// Recursive Call to get the upcoming numbers

else

return (Fibonacci($number-1) +

Fibonacci($number-2));

}

// Driver Code

$number = 10;

for ($counter = 0; $counter < $number; $counter++){

echo Fibonacci($counter),' ';

}

?>

Output:

0 1 1 2 3 5 8 13 21 34

**Machine Test**

**1.**

* Add Product (using item\_code,item\_name,Quantity,Price)
* View Product details
* Search Products
* Update Product details

2) Basically, project to manage school and students.

● CRUD functionality (Create / Read / Update / Delete) for two menu items: SCHOOL

and STUDENTS.

● school DB table consists of these fields: Name (required), email, login (minimum

100×100), website

● students DB table consists of these fields: First name (required), last name

(required), school (foreign key to school), email, phone

Q: What is Django?

A: Django is a high-level web framework written in Python that encourages rapid development and clean, pragmatic design.

Q: What are the main features of Django?

A: Some of the main features of Django include its built-in admin interface, Object-Relational Mapping (ORM), templating engine, URL routing, middleware, and support for multiple databases.

Q: How does Django compare to other web frameworks?

A: Django is often compared to other popular web frameworks such as Ruby on Rails and Flask. Django is known for its robustness and completeness, making it a great choice for larger, more complex web applications. Flask, on the other hand, is known for its simplicity and flexibility, making it a great choice for smaller projects or APIs.

Q: What is the Django ORM?

A: The Django ORM (Object-Relational Mapping) is a tool that allows developers to interact with databases using Python objects instead of writing SQL queries directly.

Q: How does Django handle security?

A: Django has several built-in security features, such as protection against cross-site scripting (XSS), cross-site request forgery (CSRF), and SQL injection attacks. Django also provides tools for implementing authentication and authorization, such as user management and permissions.

Q: Can you explain the MVC architecture in Django?

A: In Django, the Model-View-Controller (MVC) architecture is split into Model-View-Template (MVT). The model represents the data and the business logic, the view handles the presentation logic, and the template handles the presentation of data.

Q: How does Django handle URL routing?

A: Django uses a URL routing system that maps URLs to views. URLs are defined in a urls.py file, and views are defined in a views.py file. The URL routing system uses regular expressions to match URLs to views.

Q: Can you explain the difference between a Django project and a Django app?

A: A Django project is a collection of settings and configurations for a specific web application. A Django app is a self-contained module that can be plugged into any Django project and provides a specific functionality, such as user authentication or blog posts.

Q: How do you test Django applications?

A: Django provides a built-in testing framework that allows developers to write unit tests, integration tests, and functional tests for their applications. Tests can be run using the manage.py test command.

Q: Can you give an example of a Django project you have worked on?

A: [Answer will vary based on the candidate's experience.]