Experiment No. 3

Title:-To Study different operators in PHP.

Theory:-

Operator:-An operator is a symbol that tell the compiler which arithmetic or logical operation to be performed between the respective operands.

PHPArithmetic Operators:-

The PHP arithmetic operators are used with numeric values to perform common arithmetical operations, such as addition, subtraction, multiplication etc.

Operator	Name	Example	Result
+	Addition	$x + $y	Sum of $x and $y
-	Subtraction	$x - $y	Difference of $x and $y
*	Multiplication	$x * $y	Product of $x and $y
/	Division	$x / $y	Quotient of $x and $y
%	Modulus	$x % $y	Remainder of $x divided by $y

PHPAssignment Operators:-

The PHP assignment operators are used with numeric values to write a value to a variable. The basic assignment operator in PHP is "=". It means that the left operand gets set to the value of the assignment expression on the right.

PHP Logical Operators:-

The PHP logical operators are used to combine conditional statements.

Operator	Name	Example	Result
and	And	$x and $y	True if both $x and $y are true
or	Or	$x or $y	True if either $x or $y is true
xor	Xor	$x xor $y	True if either $x or $y is true, but not both
&&	And	$x && $y	True if both $x and $y are true
||	Or	$x || $y	True if either $x or $y is true
!	Not	!$x	True if $x is not true

Code:-

PHPArithmetic Operators:-

AnjaliGupta1.php

```php
<?php
$a=20;
$b=10;
echo "First number: $a <br
echo "Second number: $b<br
echo "<br/>";
$c=$a + $b;
echo "Addition: $c
<br/>"; $c=$a - $b;
echo "Subtraction: $c
<br/>"; $c=$a * $b;
echo "Multiplication: $c
<br/>"; $c=$a / $b;
echo "Division: $c
<br/>"; $c=$a % $b;
echo "Modulus: $c
<br/>";
?>
```

Output:-

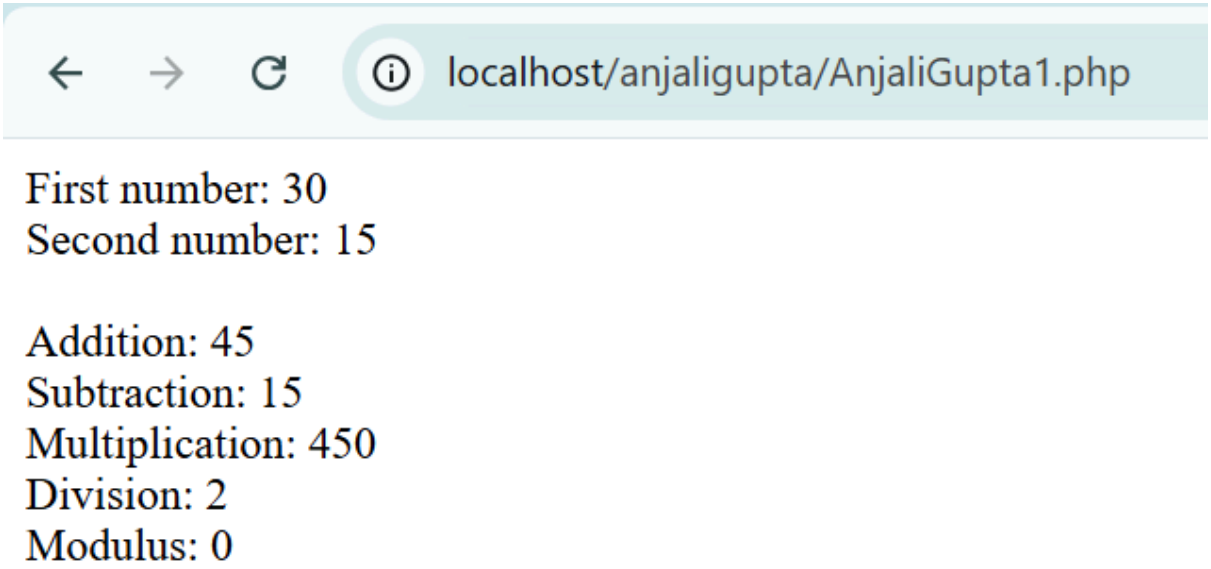
First number: 20
Second number: 10

Addition: 30
Subtraction: 10
Multiplication: 200
Division: 2
Modulus: 0

AnjaliGupta1.php

```php
<?php
$a=30;
$b=15;
echo "First number: $a <br/>"
echo "Second number: $b<br/>"
echo "<br/>";
$c=$a + $b;
echo "Addition: $c
<br/>"; $c=$a - $b;
echo "Subtraction: $c
<br/>"; $c=$a * $b;
echo "Multiplication: $c
<br/>"; $c=$a / $b;
echo "Division: $c
<br/>"; $c=$a % $b;
echo "Modulus: $c
<br/>";
?>
```

Output:-

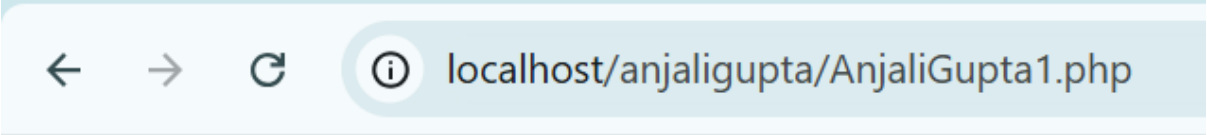


PHPAssignment Operators:-

AnjaliGupta1.php

```php
<?php
$a=20;
echo "a =
$a<br/>"; $a+=10;
echo "a = a+10:
$a<br/>"; $a-=10;
echo "a = a-10:
$a<br/>"; $a*=10;
echo "a = a*10:
$a<br/>"; $a/=10;
echo "a = a/10:
$a<br/>"; $a%=10;
echo "a = a%10:
$a<br/>";
?>
```

Output:-

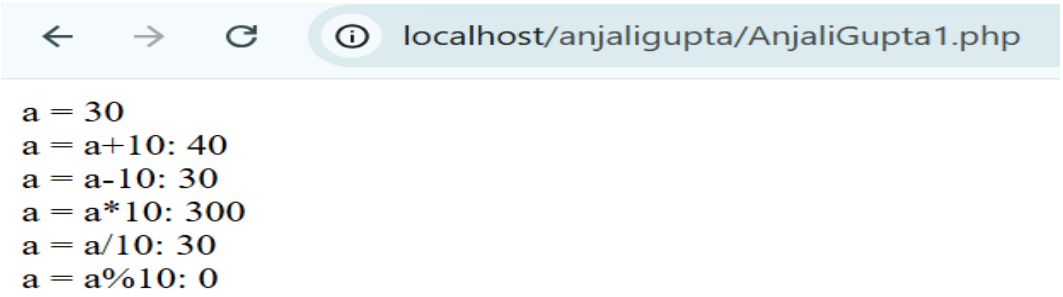


a = 20
a = a+10: 30
a = a-10: 20
a = a*10: 200
a = a/10: 20
a = a%10: 0

AnjaliGupta1.php

```php
<?php
$a=30;
echo "a =
$a<br/>";$a+=10;
echo "a = a+10:
$a<br/>"; $a-=10;
echo "a = a-10:
$a<br/>"; $a*=10;
echo "a = a*10:
$a<br/>"; $a/=10;
echo "a = a/10:
$a<br/>"; $a%=10;
echo "a = a%10:
$a<br/>";
?>
```

Output:-

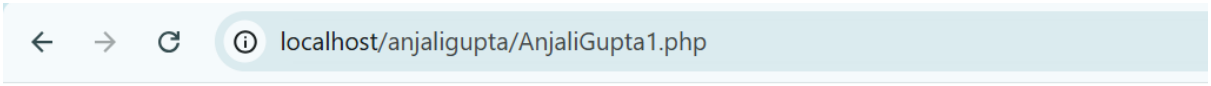


PHP Comparison Operators:-

AnjaliGupta1.php

```php
<?php
$a = 20;
$b = 10;
$c = 20;
var_dump ($a == $c);
var_dump ($a!= $b);
var_dump ($a <> $b);
var_dump ($a ===$c);
var_dump ($a!==$c);
var_dump ($a < $b);
var_dump ($a >$b);
var_dump ($a <=$b);
var_dump ($a >=$c);
 ?>
```

Output:-



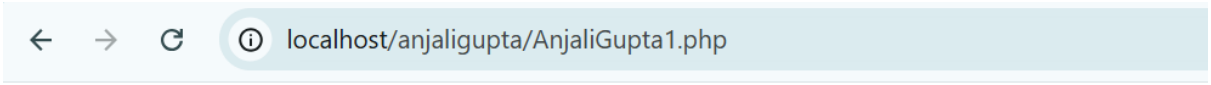
bool(true) bool(true) bool(true) bool(true) bool(false) bool(false) bool(true) bool(false) bool(true)

AnjaliGupta1.php

```php
<?php
$a = 30;
$b = 15;
$c = 40;
var_dump ($a == $c);
var_dump ($a!= $b);
var_dump ($a <> $b);
var_dump ($a ===$c);
var_dump ($a!==$c);
var_dump ($a < $b);
var_dump ($a >$b);
var_dump ($a <=$b);
var_dump ($a >=$c);
 ?>

```

Output:-



bool(false) bool(true) bool(true) bool(false) bool(true) bool(false) bool(true) bool(false) bool(false)

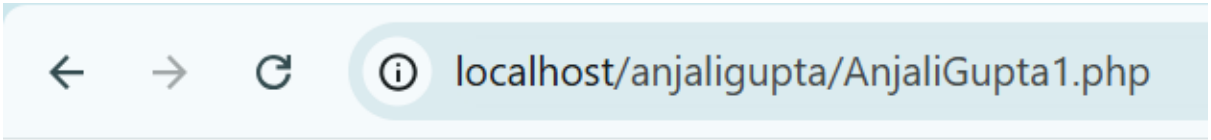
PHP Logical Operators:-

AnjaliGupta1.php

```php
<?php
$a = 20;
$b = 10;
if ($a == 20 and $b == 10)
echo "True <br/>";
if ($a == 20 or $b == 30)
echo "True <br/>";
if ($a == 20 xor $b == 5)
echo "True <br/>";
if ($a == 20 && $b == 10)
echo "True <br/>";
if ($a == 20 || $b == 20)
echo "True <br/>";
?>

```

Output:-

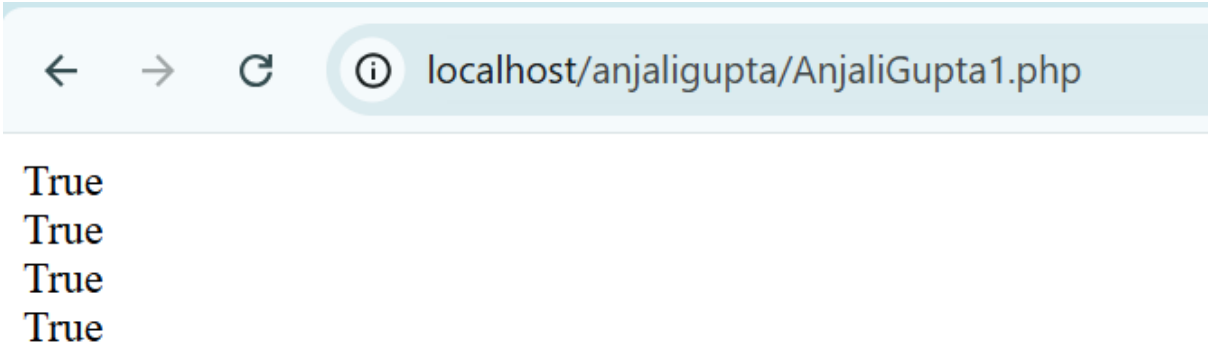


True
True
True
True
True

AnjaliGupta1.php

```php
<?php
$a = 40;
$b = 35;
if ($a == 40 and $b == 35)
echo "True <br/>";
if ($a == 40 or $b == 35)
echo "True <br/>";
if ($a == 40 xor $b == 35)
echo "True <br/>";
if ($a == 40 && $b == 35)
echo "True <br/>";
if ($a == 40 || $b == 35)
echo "True <br/>";
?>
```

Output:-



Conclusion:- Thus, we studied different operators in PHP.