



*Sample Paper
&
Question Paper Pattern*

2023
2024

GOA BOARD

Internal Scheme

Marks 50

Distribution of portion for First Mid Term and First Term Examination

Unit No	Unit Name	Weightage for Board Examination	Weightage for First Mid Term Examination	Weightage for First Term Examination
I	Database Concepts	10	10	10
II	MYSQL Basics	10	10	10
III	MYSQL Advanced & PHP Basic	10		10
IV	PHP Advanced	10		10
V	MYSQL PHP Connectivity	10		
	Total	50	20	40

Instructions:

- (a) All questions are compulsory.
- (b) The question paper consists of 24 questions
- (c) Question 1, 2, 3, 4, 5, 6, 7 and 8 are short answer
- (d) Question 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19 answer in 2 sentences.
- (e) Question 20, 21, 22, 23, 24 answer in long answers
- (f) There is choice in the paper questions – Q.23 and Q.24 of 4 marks each.
- (g) In questions with choice, only one of the choices is to be attempted.

- | | | |
|----|---|---|
| 1 | Name the term used to refer to a collection of related files | 1 |
| 2 | What is a Tuple? | 1 |
| 3 | Name the command which add new rows to a table. | 1 |
| 4 | Construct MySQL query for the following
Table : Student
Fields: Rollno, name, address, city

To add the field dateofbirth before the address field. | 1 |
| 5 | Name the function which return the smallest integer value not larger than the specific value | 1 |
| 6 | What is the use of echo()? | 1 |
| 7 | Name the model which is used to read and write a file or start at the beginning of a file. | 1 |
| 8 | Name the function used to open and close files in PHP. | 1 |
| 9 | State and explain Entity Integrity Rule. | 2 |
| 10 | Explain the following types of Keys
1. Candidate Key
2. Composite Key | 2 |
| 11 | State and explain any two datatype in MYSQL. | 2 |
| 12 | Explain Union Command with an example. | 2 |
| 13 | Explain the following function
1. Now()
2. SUBSTR() | 2 |
| 14 | Explain view in MYSQL. | 2 |
| 15 | Explain \$_GET with an example. | 2 |
| 16 | Explain briefly File Upload command. | 2 |
| 17 | With an example explain mysql_select_db(). | 2 |
| 18 | Explain following segment of PHP code
\$query =mysql_query ("update employee set designation="Programmer"
where qualification=""MCA"); | 2 |
| 19 | Explain following segment of PHP code
\$query =mysql_query ("select name,address from customer where city
="Hyderabad " limit 1,5"); | 2 |

- 20 Explain briefly the ERD (Entity relationship Diagram) of Student admission System with neat E-R Diagram. 4
- 21 Construct MYSQL queries for the following 4
- Table: Employee
- Field: EMPID, NAME, VDESIGNATION,GENDER,SALARY

- To find total number of male and female employee.
- To arrange the records on salary field in descending order
- To display only those record where designation is Programmer or Manager
- To display total amount of salary paid to the employee.

- 20 Explain while loop with example. 4
- 21 Write PHP code to count number of vowels in a sentence or word. 4
- 22 Write PHP code to add record to a table in the following format 4

Database: Customer

Table: customerinfo

Fields: customerid, name, mobileno, address.

Display a message "Record is added successfully" after adding every record.

Customerid:

Name:

Mobileno:

Address:

Add

RECORD

- 23 Write PHP code to retrieve data from 4
- Database : student
- Table: Marks
- Fields:- rollno, name, maths, english, science, hindi.
- Calculation : total =maths + english + science + hindi.
- Percentage =total/4

Print a report in the format given below.

Rollno	Name	Maths	English	Science	Hindi	Total	Percentage
--------	------	-------	---------	---------	-------	-------	------------

Instructions:

- (h) All questions are compulsory.
- (i) The question paper consists of 24 questions
- (j) Question 1, 2, 3, 4, 5, 6, 7 and 8 are short answer
- (k) Question 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19 answer in 2 sentences.
- (l) Question 20, 21, 22, 23, 24 answer in long answers
- (m) There is choice in the paper questions – Q.23 and Q.24 of 4 marks each.
- (n) In questions with choice, only one of the choices is to be attempted.

Answer Key

- | | | |
|----|--|---|
| 1 | Name the term used to refer to a collection of related files
Database | 1 |
| 2 | What is a Tuple?
The rawwise information present in a table is referred as tuple. | 1 |
| 3 | Name the command which adds new rows to a table.
Insert | 1 |
| 4 | Construct MySQL query for the following
Table : Student
Fields: Rollno, name, address, city

To add the field dateofbirth before the address field.

ALTER TABLE Student
ADD dateofbirth DATE AFTER name; | 1 |
| 5 | Name the function which returns the smallest integer value not larger than the specific value
Ceiling() | 1 |
| 6 | What is the use of echo()?
This function is used to display one or more strings in the output. | 1 |
| 7 | Name the model which is used to read and write a file or start at the beginning of a file.
R+ | 1 |
| 8 | Name the function used to open and close files in PHP.
fopen() and fclose() | 1 |
| 9 | State and explain Entity Integrity Rule. | 2 |
| 10 | Explain the following types of Keys
1. Candidate Key
2. Composite Key | 2 |

Candidate key : is an attribute or set of attributes that uniquely identifies a record. These attributes or combinations of attributes are called **candidate** keys. In such a case one of the candidate keys is chosen to be a primary key. The remaining candidate keys are called alternate keys.

Composite key: In many cases as we design a database we will have tables that will use more than one column as a part of primary key. These are called composite keys or concatenated keys. In other words when a record cannot be uniquely identified by a single field in such cases a composite key is used. A composite key is a group of fields that uniquely identify a record.

- | | | |
|----|---|---|
| 11 | State and explain any two datatypes in MySQL. | 2 |
|----|---|---|

In MySQL, a data type is an attribute of a column or variable that defines what type of data can be stored in that column or variable. MySQL supports a wide range of data types, which can be broadly classified into the following categories:

1. **Numeric data types:** These data types are used to store numeric values, including integers, floating-point numbers, and decimal numbers. The most commonly used numeric data types in MySQL are INT (for integers), FLOAT and DOUBLE (for floating-point numbers), and DECIMAL (for decimal numbers).
2. **Date and time data types:** These data types are used to store date and time values, including DATE (for dates), TIME (for times), DATETIME (for date and time values), and TIMESTAMP (for timestamps).
3. **String data types:** These data types are used to store text and character data, including CHAR and VARCHAR (for strings of characters), TEXT (for longer strings), and ENUM and SET (for enumerated values).
4. **Binary data types:** These data types are used to store binary data, including BLOB (for large binary objects) and VARBINARY (for variable-length binary data).

12 Explain Union Command with an example.

2

Union The union operator is used to combine the result of two or more SELECT statements without returning any duplicate rows. If a row of output exists in the result of one query the same is not returned, even though it exists in the results of second query that combined with a UNION operator.

To use UNION each SELECT must have the same number of columns selected, the same number of column expressions, the same data type and have them in the same order but they do not have to be the same length.

Syntax : SELECT COLUMN1, COLUMN2

FROM TABLE1, TABLE2

WHERE

UNION

SELECT COLUMN1, COLUMN2

FROM TABLE1, TABLE2;

Eg. SELECT EMP_ID FROM EMPLOYEE_TBL

UNION

SELECT EMP_ID FROM EMPLOYEE_PAY_TBL;

Those employee id's that are in both tables appear only once in the results.

13 Explain the following function

2

3. NOW()
4. SUBSTR()

NOW() function, it returns the current date and time based on the time zone setting of the MySQL server. The datetime value returned by the NOW() function has the format 'YYYY-MM-DD HH:MM:SS', where YYYY represents the year, MM represents the month, DD represents the day, HH represents the hour (in 24-hour format), MM represents the minute, and SS represents the second.

In MySQL, the SUBSTR() function is a built-in string function that returns a substring of a given string. The syntax for the SUBSTR() function is as follows: SUBSTR(string, start, length)

14 Explain view in MYSQL.

2

Views is a predefined query that is stored in the database, has the appearance of an ordinary table and is accessed like a table but does not require physical storage.

Eg. A view can be created from the EMPLOYEE_TBL table that contains only the employee's name and address, instead of all column in the EMPLOYEE_TBL table.

A view can contain all rows of a table or select rows from a table. A view can be created from one or many tables.

SELECT statement is used to define the view and contains column names from the table or can be written using various functions and calculations to manipulate and summarize the data.

A view is considered a database object although the view takes up no storage space on its own.

15 Explain \$_GET with an example.

2

The predefined \$_GET variable is used to collect values in a form with method="get"

Information sent from a form with the GET method is visible to everyone (it will be displayed in the browser's address bar) and has limits on the amount of information to send.

Example

```
<form action="welcome.php" method="get">
Name: <input type="text" name="fname" />
Age: <input type="text" name="age" />
<input type="submit" />
</form>
```

16 Explain briefly File Upload command.

2

This is a very simple, yet fully functional PHP script/function to upload files to your website. Usage and integration is simple, file uploads can be as simple as adding one line to your PHP form processing scripts. All you do is call a function. UPDATED: Now supports uploading multiple files

17 With an example explain mysql_select_db().

2

1. Mysql_select_db() : is used to select a database to be used after connecting to mysql and takes only one argument which is the name of the database.

```
$connection = mysql_connect("localhost","","");
```

```
if ($connection) {
    $db = mysql_select_db("name of database to be used");
    if (!$db) print "Failed to select "name of database".\n";
}
else {
    Print "Failed to connect to database.\n";
}
```

Mysql_ping() without any parameter can be used to check whether the server is alive.

18 Explain following segment of PHP code

2

```
$query=mysql_query ("update employee set designation='Programmer' where
qualification='MCA');
```

The value returned by mysql_query is assigned to a variable \$query In the given query the record will be updated from employee table. The designation will be updated to programmer only if qualification is equal to MCA

- 19 Explain following segment of PHP code 2
`$result=mysql_query ("select name,address from customer where city ="Hyderabad " limit 1,5");`

The value returned by mysql_query is assigned to a variable result the records will be displayed from customer table as per given condition if city name is equal to Hyderabad the first 5 records will be displayed.

- 20 Explain briefly the ERD (Entity relationship Diagram) of Student admission System with neat E-R Diagram. 4

- 21 Construct MYSQL queries for the following 4

Table: Employee

Field: EMPID, NAME, DESIGNATION, GENDER, SALARY

- e) To find total number of male and female employee.
`SELECT GENDER, COUNT(*) AS TotalCount
FROM Employee
GROUP BY GENDER;`
- f) To arrange the records on salary field in descending order
`SELECT *
FROM Employee
ORDER BY SALARY DESC;`
- g) To display only those record where designation is Programmer or Manager
`SELECT *
FROM Employee
WHERE DESIGNATION IN ('Programmer', 'Manager');`
- h) To display total amount of salary paid to the employee.
`SELECT SUM(SALARY) AS TotalSalary
FROM Employee;`

- 20 Explain while loop with example. 4

While loop: If the test expression is true then the code in the statement block will be executed. After the code has executed the test expression will again be evaluated and the loop will continue until the test expression is found to be false.

The statement block must feature code that will affect the

test expression in order to change the evaluation result to false at some point otherwise an infinite loop will be created. It is important to note that if the test expression is not true when it is first evaluated the code in the statement block is never executed.

eg to find sum of 1 to 10 numbers.

```
<?php
$i=1; $sum=0;
While ($i<=10)
{$sum+=$i;
$i++;
}
echo("the sum is $sum");
?>
```

- 21 Write PHP code to count number of vowels in a sentence or word. 4

Page 1 :<html>

```

<head><title>vowel names</title>
</head>
<body>
<form name="form1" action="v.php" method="post">
Enter Word : <input type="text" name="text1">
<input type="submit" value="submit" name="submit">
</form>
</body>
</html>

```

Page 2 :<html>

```

<head><title>vowel</title>
</head>
<body>
<?php
$n=$_POST['text1'];
$t=0;
for($i=0;$i<=strlen($n);$i++)
{
$v=substr($n,$i,1);
if($v=='a'||$v=='e'||$v=='i'||$v=='o'||$v=='u')
{
$t++;
}
}
echo "The Number of Vowels are ".$t;
?>
</body>
</html>

```

- 22 Write PHP code to add record to a table in the following format

4

Database: Customer

Table: customerinfo

Fields: customerid, name, mobileno, address.

Display a message “Record is added successfully” after adding every record.

Customerid: Name: Mobileno: Address: Add RECORD

Customeradd.html

```

<html>
<head><title>Add record</title>
</head>
<body>

```

```

<form name="form1" action="add.php" method="post">
Customerid : <input type="text" name="customerid" size="3"> <br>
Name : <input type="text" name="name" size="20"><br>
Mobilenno : <input type="text" name="mobilenno" size="12"><br>
Address : <input type="text" name="address" size="30"><br>

<input type="submit" value="Add Record" name="submit">
</form>
</body>
</html>

```

Add.php

```

<?php
$servername = "localhost";
$username = "root";
$password = "";
$customerid = $_POST['customerid'];
$name = $_POST['name'];
$mobileno = $_POST['mobilenno'];
$address = $_POST['address'];

// Create connection
$con = mysql_connect($servername, $username, $password) or die("connection failed");

// select database
$db=mysql_select_db("customer") or die("database not slected");

// record insert
$sql = "insert into customerinfo(customerid,name,mobileno,address)
values('$customerid','$name','$mobileno','$address')";

echo "New record created successfully";
// close connection

mysql_close($con);
?>

```

23

Write PHP code to retrieve data from

4

Database : student
Table: Marks
Fields:- rollno, name, maths, english, science, hindi.
Calculation : total =maths + english + science + hindi.
Percentage =total/4

Print a report in the format given below.

Rollno	Name	Maths	English	Science	Hindi	Total	Percentage
--------	------	-------	---------	---------	-------	-------	------------

```

<?php
$servername = "localhost";

```

```

$username = "root";
$password = "";

// Create connection
$con = mysql_connect($servername, $username, $password) or die("connection failed");

// select database
$db=mysql_select_db("student") or die("database not slected");

// $sql="select * from marks";

$res=mysql_query("select * from marks") or die ("Query Error");

echo "<table border=2>";

echo "<tr>";

echo "<td> Roll No </td> <td> Name </td><td> Maths </td><td> English </td><td> Science
</td><td> Hindi </td><td> Total </td><td> Percentage </td>";

echo "</tr>";

while($row=mysql_fetch_array($res))
{

$total=$row['maths'] + $row['english'] + $row['science'] + $row['hindi'];

$per=($total/4);

echo "<tr>";
echo
"<td>".$row['rollno']. "</td><td>".$row['name']. "</td><td>".$row['maths']. "</td><td>".$row
['english']. "</td><td>".$row['science']. "</td><td>".$row['hindi']. "</td><td>".$total. "</td>
<td>".$per. "</td>";
echo "</tr>";
}

echo "</table>";

// close connection

mysql_close($con);
?>

```

GOA BOARD OF SECONDARY & HIGHER SECONDARY EDUCATION
ALTO – BETIM, GOA
PROFORMA FOR ANALYSIS OF QUESTION PAPER

Subject: Web Technology

Year of Examination: 2023-24

Class: XII Computer Technique

Max. Marks: 50

Time allotted: 2 hr

1.□Sections if any: - NIL

2.□Total No. of questions and marks: -

No. of questions set in the paper	No. of questions to be attempted	Total marks for all the questions set in the paper	Maximum marks for attempted questions
24	23	54	50

3.□Study of options:

(a) Overall options in the whole question paper:- -NO-

(b) Overall options within the sections: - -NO-

(c) Overall options within a question: - -NO-

(d) Internal option within the question: - -NO-

(e) Comparability options: -

4. Instructions for examiners: - AS PER PATTERN

5. Directions in individual question: - -NIL-

6. Allocation of marks question-wise and part-wise: Q1 to Q8 - each with 1 mark

Question 9, 10, 11, 12, 13, 14, 15,16,17,18 and 19 answer in 2 to 3 sentences 2 Marks Each

Question 20, 21, 22, 23, 24 answer in long answers Long Answer 4 Marks

7.□General format

(a) Arrangement of question, numbering and printing etc.:

Q1 to Q24

8. Question - wise analysis

Sr. no. Part no	Objective	Content Area Major area of content topic	Form of the questions	Language of Questions	Definiteness of the answers	Difficulty level of the questions	Marks allotted	Time in min.
Q1	K	D.C	VSA	ENGLISH	Definite	Easy	1	2
Q2	U	D.C	VSA		Definite	Easy	1	2
Q3	K	MYSQL B	VSA		Definite	Easy	1	2
Q4	A	MYSQL B	VSA		N.Definite	Average	1	2
Q5	K	MYSQL A	VSA		Definite	Easy	1	2
Q6	K	MYSQL A	VSA		Definite	Easy	1	2
Q7	K	PHP A	VSA		Definite	Easy	1	2
Q8	U	PHP A	VSA		Definite	Average	1	2
Q9	U	D.C	SA		Definite	Easy	2	4
Q10	U	D.C	SA		Definite	Easy	2	4
Q11	U	MYSQL. B	SA		Definite	Easy	2	4
Q12	U	MYSQL. B	SA		Definite	Easy	2	4
Q13	U	MYSQL. A	SA		Definite	Average	2	4
Q14	U	MYSQL. A	SA		Definite	Average	2	4
Q15	A	PHP .A	SA		Definite	Easy	2	4
Q16	A	PHP.A	SA		Definite	Easy	2	4
Q17	K	PhpConnectivity	SA		N.Definite	Average	2	4
Q18	U	PhpConnectivity	SA		Definite	Difficult	2	4
Q19	U	PhpConnectivity	SA		N.Definite	Difficult	2	4
Q20	U	D.C	LA		Definite	Average	4	12
Q21	A	MYSQL B	LA		ND	Average	4	12
Q22	U	MYSQL A	LA		Definite	Average	4	12
Q23	A	PHP A	LA		ND	Difficult	4	12
Q24	A	PhpConnectivity	LA		Definite	Difficult	4	12

A. Weightage to Objectives:

Sr. No.	Objectives	Weightage	
		Marks	Percentage
1	Knowledge	7	14%
2	Understanding	26	52%
3	Application	17	34%
4	Skill		

B. Weightage to Content/Subject Units

Sr. No.	Units	No. of Questions	Marks	Percentage
1	Database Concepts	5	10	20%
2	MYSQL Basic	5	10	20%
3	MYSQL Advance	5	10	20%
12	PHP Advanced	5	10	20%
5	MYSQL PHP Connectivity	5	10	20%

C. Coverage of topics

No. of topics in the syllabus	Topics covered	Percentage
05	05	100%

D. Weightage to form of questions

Sr. No.	Form of questions	Marks for each question	No. of questions	Total Marks	Percentage
1	Very Short Answer Type (VSA)	1	8	8	16%
2	Short Answer Type (SA-I,SA-II)	2	11	22	44%
3	Long Answer Type(LA)	4	5	20	40%
4					
	Total			50	100%

E. Language of Questions :

Definiteness	No. of questions	Marks	Percentage
Definite	19	37	74%
Partly Definite			
Not Definite	5	13	26%

F. Difficulty Level

Levels of difficulty	No. of Questions	Marks	Percentage
Easy	12	18	36%
Average	08	20	40%
Difficult	04	12	24%

Goa Board of Secondary & Higher Secondary Education, Alto, Betim – Goa

BLUE PRINT OF HSSCE EXAMINATION (FIRST TERM)

Duration: - 1 hour

Subject: Web Technology

Maximum marks: - 20

Objective s → ↓ Content Area	Knowledge				Understanding				Application				Skill				Total
	VSA	SA-I	SA-II	LA	VSA	SA-I	SA-II	LA	VSA	SA-I	SA-II	LA	VS A	SA-I	SA-II	L A	
Database Concept	1(1)				1(1)		2(2)	1(4)									10
MySQL Basic	1(1)						2(2)		1(1)			1(4)					10
MYSQL Advanced & PHP Basic	2(2)						2(2)	1(4)									10
PHP Advanced	1(1)				1(1)						2(2)	1(4)					10
MYSQL PHP Connectiv ity			1(2)				2(2)					1(4)					10
Total	6(7)				12(26)				6(17)								24(50)

Note: Figures outside the brackets indicate the number of questions and figures within brackets indicate marks.

For example, 4(2). *Indicates option

LIST OF PRACTICALS TO BE COVERED FOR MYSQL FOR THE YEAR 2023-2024.

(Additional practical's as required may be done by the respective teacher.)

1. Create database Employee.

Table : Emp_tbl.

Fields : Employee_id, Name, Address, Salary, Age.

Construct MySQL queries with reference to the above structure.

- a. Enter a data record in Emp_tbl.
- b. List all the records from eEmp_tbl.
- c. Add a coloum date of birth between address and salary.
- d. Display Employee_id and Names of employees whose age is less than 30.

2. The Salary table has fields EmployeeId, Name, BasicSalary.

Construct Mysql queries:

- a. To add a record to the table.
- b. To view all the records from the table.
- c. To display the highest BasicSalary from table.
- d. To remove column Name from table.

3. The Invoice table has the fields InvoiceNumber, Description, Quantity, Amount.

Construct Mysql Queries :

- a. To display the structure of the table.
- b. To remove all the records whose amount is below 5000.
- c. To insert invoice_date between InvoiceNumber and description.
- d. To display the total amount of all the records from the table.

4. The BANKS table has the fields CustomerID, Name, Age, Amount

Construct MYSQL queries for the following:

- a. ☐ Add a record.
- b. ☐ Delete records of customer whose age is less than 40.
- c. ☐ Change the name of the Field amount to deposit.
- d. ☐ Insert a field address between name and age.

5. The PAY table has the fields EmployeeID, Name, date_of_birth, salary

Construct MySQL queries for the following:

- a. Create pay table.
- b. Display total salary of employees.
- c. Display EmployeeID, name and salary in descending order of name.
- d. Change the name of table Pay to Pay_tbl.

6. Table: Student
Fields: Roll no, Name, DOB.

Construct MySQL queries for the following:

- a. Display name, date of birth and day on which student is born.
- b. Display name and age of each student.
- c. Display names of all students who are born in December.
- d. To change date of birth of a student as 01 Jan 2000 whose name is "ANMOL".

7. Table: Payroll
Fields: Emp_id, name, state, salary.

Construct MySQL queries for the following:

- a. Insert another field 'DESIGNATION' in the table with length 10 and of character data type after field name.
- b. To arrange records in descending order based on their salary.
- c. Display all the employees whose designation is programmer and salary is more than 50,000.
- d. To display total number of employee from each state.

8. With reference to the given structure of the table, construct the following queries:

The database 'Employee' contains table 'E_tbl' table with fields Emp_id, Emp_Name, Dob, State, Salary.

- a. Display Emp_id, Emp_name and Salary in the descending order of the Emp_name.
- b. Display state and the total number of employees from each state.
- c. Insert another field 'Gender' in the table with length 6 and of char data type, after the field Emp_name.
- d. Change the value of the field 'Dob' to 2012-10-12 whose salary is greater than 25000.

9. Construct MySQL queries for the following: Table : Inventory.
Fields : itemid, itemname, price, qty.

- a. To arrange the records as per price in descending order.
- b. Display itemid, itemname of all the items where quantity is between 5 to 10.
- c. To remove the records where itemname is "Transistor".

d. Display name of all items whose price is greater than 10000.

10. Create a Database: Customer.

Table 1: Cust_tbl.

Fields: Customerid, Name, Address.

Table 2: Bill_tbl.

Fields: Customerid, Productid, Quantity, Amount.

Construct MYSQL queries for the following:

- a. To list Customerid, Productid, Amount from Bill_tbl whose Amount exceeds 1,000.
- b. To enter a data record in Cust_tbl.
- c. To display all the records from multiple tables by combining Cust_tbl and Bill_tbl.
- d. To remove Address column from Cust_tbl.

Students need to perform at least 5 Practical from the above list

Write PHP programs to

1. Generate first n numbers.
2. Check if a given number is even or odd.
3. Generate first n even /odd numbers.
4. Generate n numbers starting from 5.
5. Generate n even numbers starting from 10.
6. Generate n odd numbers starting from 7.
7. Generate even / odd numbers less than a given number.
8. Generate even / odd numbers between given 2 numbers.
9. Find the sum of the first n numbers.
10. Find the sum of the squares of the first n numbers.
11. Find whether a given number is positive, negative or zero.
12. Find area of a triangle using the formula: $\text{area} = \sqrt{s(s-a)(s-b)(s-c)}$ where $s = (a+b+c) / 2$.
13. Find the roots of a quadratic equation.
14. Find the average of the first n numbers.
15. Find the sum of digits of a number.
16. Reverse a given number.
17. Find the factorial of n.
18. Find Permutation.
19. Find Combination.
20. Generate Fibonacci series i.e. 0 1 1 2 3 5 8 13 21 ...

21. Generate multiplication table.
22. To check if a given number is Armstrong or not.
23. Reverse a given string.
24. To check if a given number is prime or not.
25. To check if a given string is palindrome.
26. To count the number of vowels in a given string.
27. To count the number of words in a given string.
28. To count the number of occurrences of each vowel in a given string.
29. Count the number of elements in an array.
30. Find the maximum value in an array.
31. Find the least value in an array.
32. Sort values from the array.
33. Given values in an array A, put all even numbers in array E and odd numbers in array
34. Design a login form to add a record using OK and cancel Button.
35. Design a form for Update and delete a Record.
36. Program to retrieve a record in a table form.
37. Menu Driven Programs for Add ,Update, Delete and View a data
38. Program to input data and display the report and Print.

Teachers need to do any two practical between sr no 1 to 5, any two practical between srno 6 to 10 and so on. serial no 34 to 38 all 5 Over all at least 15 practical's need to be performed from the list mentioned above by the students.

MYSQL Query

1. Using MYSQL Basic Command to frame query
2. To set relationship and access data from Multiple tables
3. Installation of WAMP server
4. To Create forms Using Validation
5. Select the Command using specific field or all.
6. Select using wildcard and condition
7. Form Query Using Update, Delete Order by, Alter ,Having, Group by, Joins, date function, Drop,

(All Programs to be written in PHP MYSQL and HTML Code)

8. Programs on Loops(for, While ,do while,) PHP
9. Programs on Decision Statement (if, if else, nested if, Switch) PHP
10. Programs on Array. PHP
11. Programs on String. PHP

- 12.Design a login form to add a record using OK and cancel Button.
- 13.Design a form for Update and delete a Record.
- 14.Program to retrieve a record in a table form.
- 15.Program on MYSQL and PHP connectivity.

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Std. XII Web Technology
Syllabus for 2023 2024

Distributions of Marks are as follows:

Unit I	Database Concept	10 Marks
Unit II	MYSQL Basics	10 Marks
Unit III	MYSQL Advanced & PHP Basic	10 Marks
Unit IV	PHP Advanced	10 Marks
Unit V	MYSQL PHP Connectivity	10 Marks

Total : 50 Marks

Unit I • Introduction to database **(10 Marks)**

File, record, Entity, attributes

Types of users 1. Naïve users 2. Online users 3. Application Programmer
4. Database administrator

3-Level Architectural proposal 1. Internal Level 2. Conceptual level 3. External Level

Characteristics of DBMS, Advantages & disadvantages of DBMS

Data Independence(Logical & Physical) Schema Data Abstraction Data redundancy **Data Integrity**

• Database security (pg no:235) • Privacy of data.

Preserving policies of the organization,

System related security level,

Database Integrity Access control Relational Model

Definition of Relation Key concept: super key (with eg), primary key candidate key, composite key, secondary key, foreign key. **Integrity Rule**

• Integrity rule 1 - Entity Integrity • Integrity rule 2-referential integrity, domain-Integrity.

NULL Value Concept. Database Design Schema Subschema:

Entity-Relationship Data Model (E-R Model) 1. Library 2. Pay

roll 3. Banking 4. Admission of students 5. Hospital Management

Unit - II (To Acquire basic knowledge of working with Mysql)

(10 mks)

MYSQL BASICS (Ref. book The complete reference Mysql By Vikram Vaswant McGraw Hill Publication) • Introduction to Mysql

- Installation:
- The MySQL commands: select , insert, update, delete, index, alter, create, drop, Exit, quit, shutdown, file, copy, limit
- Data Types : Text, Numbers, Date and time
- Numeric types: Tinyint, Mediumint, Integer, Smallint, Bigint, Float, double
- String types: Char, varchar, tinytext, mediumtext, longtext
- Arithmetic operators . Comparision operators , Logical operators
- Query commands : WILD CARDS, SELECT, WHERE.DISTINCT.GROUP BY, HAVING, UPDATE IN LIKE, ORDER BY ,
BETWEEN.SELECT DATA.INNER JOIN, OUTER JOIN,
UNION

Unit III - (5+5mks) (To Acquire Advance knowledge of working with Mysql & PHP)

MYSQL Advanced & PHP Basic

(10 mks)

Functions

Math functions: Abs(), ceiling, floor(), greatest, least(), rand(), round(), sign(), sqrt(), truncate().

Aggregate function : Avg(), count(), min(), max(), sum()

String functions: ASCII(), concat(), chat().insert(), lower(), LCASE(), left() length(), ltrim() repeat(), reverse(), Right(), rtrim(), stremp(), substring(), trim(), upper()

Date and time function: Curdate(), curtime(), date_add(), date_format(), date_sub(), dayofweek(), Dayofmonth(), dateofyear(), dayname(), month(), monthname(), now(), period_ add(), Period_diff(), hour(), minute(), second() to_days(). Trigger & Views(Only theory concept) Ref. Mysql by Larry Ullman

Views : Diff between view and a table.

INTRODUCTION to PHP

Beginning and ending block of PHP statement

Tag style , Standard tags ,Script tags,

Print, Use of echo, Adding comments to php code, VARIABLES Dynamic variables,

Data types Integer, whole number, double, string, Boolean, array

Arithmetic operator, Comparisons operator, The concatenation operator, operator assignment, Precedence of operator,

The if statement if else clause, switch statement

For loop, While, Do while loop, for ..each

Function, Global variables

Creating an array, Defining arrays with array() ,Associative arrays,
Looping through an array

Unit IV

(10 mks)

Advanced php (Ref W3school php)

Including files with file include()/require ,
The \$ GET Variable, The \$ POST Variable
File upload , Types of Error
PHP Session Variables
Opening a File, fopen(), fclose()
The File may be opened in one of the following modes:

Modes	Description
R	Read only. Starts at the beginning of the file.
r+	Read/Write. Starts at the beginning of the file.
W	Write only. Opens and clears the contents of file or creates a new file if it doesn't exist.
W	Read/Write.Opens and clears the contents of file; or creates a new file if it doesn't exist.
A	Append. Opens and writes to the end of the file or creates a new file if it doesn't exist.
a+	Read/Append. Preserves file content by writing to the end of the file.
X	Write only. Creates a new file. Returns FALSE and an error if file already exists.

Unit V MYSQL PHP Connectivity

(10 mks)

1. mysql_connect()
2. mysql_create_db()
3. mysql_drop_db()
4. mysql_fetch_array()
5. mysql_close()
6. mysql_num_row()
7. mysql_query()
8. mysql_select_db()
9. mysql-select()
10. mysql_error()

Internal Scheme

Marks 50

Distribution of portion for First Mid Term and First Term Examination

Unit No	Unit Name	Weightage for Board Examination	Weightage for First Mid Term Examination	Weightage for First Term Examination
I	Database Concepts	10	10	10
II	MYSQL Basics	10	10	10
III	MYSQL Advanced & PHP Basic	10		10
IV	PHP Advanced	10		10
V	MYSQL PHP Connectivity	10		
	Total	50	20	40