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FOR GOA CLASS 12 PREPARATION

Goa Board Class 12 Sample Paper 2027 Web Technology

EXAM	YEAR	TYPE	SUBJECT
Goa Class 12	2027	Sample Paper	Web Technology

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

Subject : Web Technology **Time: 2 hours**

Total No. of Questions: 25 (Printed Pages: 02) Maximum Marks: 50

Instructions:

(a) All questions are compulsory.

(b) The question paper consists of 25 questions.

(c) Question Nos. 1-10 are objective type questions (Multiple Choice Questions) carrying 1 mark each. Select the correct answer from the alternative given below the statement.

(d) Question Nos. 11 to 20 are short answer type carrying 2 marks each. Answer should be around 30 words each.

(e) Question 21, 22, 23, 24 and 25 are long answers carrying 4 marks each.

(f) There is internal choice in question number 25

(g) In questions with choice, only one of the choices is to be attempted.

1 Which type of user works through a menu-driven application program and is not aware of the database presence? 1

- Application Programmer
- Database Administrator
- Naïve users
- Online users

2 The Conceptual level of DBMS architecture is also known as the_____. 1

- Physical level
- Logical level
- View level
- External level

3 When more than one column is used as a part of a primary key, it is called _____. 1

- Secondary key
- Composite key
- Simple key
- Foreign key

4 What is the smallest piece of meaningful information in a file? 1

- Record
- Database
- Field or data item
- Table

5 _____command is used to modify the structure of a table. 1

- UPDATE
- ALTER
- CREATE
- DROP

6	_____ clause is used to find duplicate values and is normally applied to a column. • HAVING • DISTINCT() • LIKE • D) IN	1
7	PHP stands for_____. • Personal Hypertext Processor • Hypertext Preprocessor • Private Home Page • Program Host Page	1
8	Concatenation operator in PHP is_____. • * • . • & • %	1
9	• _____ function inserts files into PHP documents. • fopen() • include() • sort() • trim()	1
10	_____ mode opens and clears the contents of file; or creates a new file if it doesn't exist • W+ • R • A • X	1
11	State and explain any four characteristics of DBMS.	2
12	State and explain any two data types in MYSQL.	2
13	Explain Update Command with an example.	2
14	Explain MONTHNAME() and SUBSTR() with example.	2
15	Briefly explain trigger in MYSQL.	2
16	Explain briefly predefined function $_POST.	2
17	Explain require Function in PHP.	2
18	With an example explain mysql_connect().	2
19	Explain following segment of PHP code $query =mysql_query (“Select name, city from customer where state =’Goa’ “);	2
20	Explain following segment of PHP code $result=mysql_query(“select * from product_table where price between 1000 and 2000”);	2
21	Explain briefly the ERD (Entity relationship Diagram) of Student admission System with neat E-R Diagram.	4

22 Construct MySQL queries for the following. 4

Table : emp_tbl.

Fields: Employee_id, Name, Address, salary,

1. To list Employee id, name whose salary exceeds 10000.
2. To enter a data record.
3. To display all the records.
4. To remove Address column.

23 Explain while loop with example. 4

24 Write PHP code to input a sentence using form and count number of words. 4

25 Write PHP code to delete a record from the table. 4

Database: Customer
Table: customerinfo
Fields: customerid, name, mobileno, address.

Customerid:

Delete

After deleting record print a report in the format given below

Customerid	Name	Mobileno	Address

OR

25 Write a PHP code to calculate interest and total amount on deposits for bank customers. 4

Database : Customer

Table : Bank

Fields : Custid, name, deposit

Calculations : Interest = Deposit * 6%

Total Amount = Deposit + Interest

Print a report in the following format :

Cust_id	Name	Deposit	Interest	Total Amount

Subject : Web Technology **Time: 2 hours**

Total No. of Questions: 25 (Printed Pages: 02) Maximum Marks: 50

Instructions:

(a) All questions are compulsory.

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(e) Question 21, 22, 23, 24 and 25 are long answers carrying 4 marks each.

(f) There is internal choice in question number 25

(g) Naïve users *In questions with choice, only one of the choices is to be attempted.*

Answer Key

1	Naïve users	1
2	Logical level	1
3	Composite key	1
4	Record	1
5	ALTER	1
6	DISTINCT()	1
7	Hypertext Preprocessor	1
8	.	1
9	include()	1
10	W+	1
11	State and explain any four characteristics of DBMS. 1. It represents complex relationships among different data. 2. Keeps control over data redundancy. 3. Enforces user defined rules to ensure the integrity of data in table form. 4. Has a centralized data dictionary for the storage of information pertaining to data fields and data manipulation. 5. Ensures that data can be shared across all applications. 6. Enforces data access authorization. 7. Has an automatic, intelligent backup and recovery procedure of data. 8. Has different interfaces through which users can manipulate data.	2
12	State and explain any two data types in MYSQL. 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	2

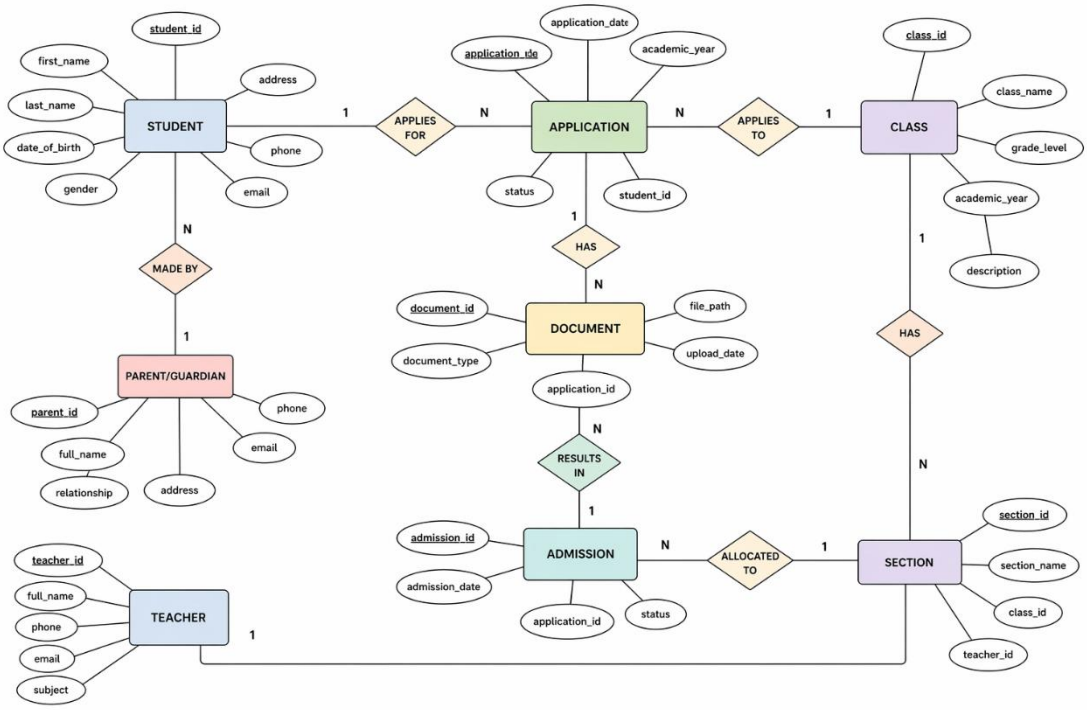
	numeric data types in MySQL are INT (for integers), FLOAT and DOUBLE (for floating-point numbers), and DECIMAL (for decimal numbers). 2. Date and time data types: These data types are used to store date and time values, including DATE (for dates), TIME (for times), DATETIME (for date and time values), 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).	
13	Explain Update Command with an example. **UPDATE:** command is used to modify data in a table. Either a single row of data or multiple records can be updated when updating a single column in a table. Syntax : UPDATE table_name SET column_table = 'value' WHERE condition; Eg. UPDATE ORDERS_TBL SET QTY = 1 WHERE ORD_NUM = '23C24';	2
14	Explain the following function Monthname() and SUBSTR() with example. **MONTHNAME()** function is used to retrieve the full name of a month from a date value. It takes a date or a date-and-time expression as an argument and returns the full name of the month associated with that date. The syntax is as follows: MONTHNAME(date_expression) 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)	2
15	Explain Trigger in MYSQL. A trigger is a compiled procedure in the database used to perform actions based on other actions that occur within the database. It is a form of a stored procedure that is executed when a specified (data manipulation language) action is performed on the table. The trigger can be executed before or after an INSERT, DELETE OR UPDATE. The trigger can also be used to check data integrity. Trigger can roll back transactions and they can modify data in one table and read from another table in another database.	2
16	Explain briefly predefined function $_POST.	2

	The predefined $_POST variable is used to collect values from a form sent with method="post".
	
	Information sent from a form with the POST method is invisible to others and has no limits on the amount of information to send.
	
	Note: However, there is an 8 Mb max size for the POST method, by default (can be changed by setting the post_max_size in the php.ini file).
	
	Example
	
	`<form action="welcome.php" method="post">`
	`Name: <input type="text" name="fname" />`
	`Age: <input type="text" name="age" />`
	`<input type="submit" />`
	`</form>`	

17	Explain required Function in PHP. require() results in a fatal error if the specified file does not exist ,does not allow the processing of the page, halts the processing of page. <?php require("nofileexistshere.php"); Echo "hello world!"; ?> The echo statement will not be executed because the script execution died after the require command returned a fatal error. Use require because script should not be executed if necessary files are missing.	2

18	With an example explain mysql_connect().
	
	Mysql_connect() : used to connect to mysql server.It takes three arguments which are IP address of a MYSQL server to connect , the user name, and the password for that username.
	
	`<?php`
	`$link = mysql_connect('localhost', 'mysql_user', 'mysql_password');`
	`if (!$link) {`
	`die('Could not connect: ' . mysql_error());`
	`}`
	`echo 'Connected successfully';`
	`mysql_close($link);`
	`?>`
		2

19	Explain following segment of PHP code $query =mysql_query ("Select name, city from customer where state ='Goa' ");	2

	The value returned by mysql_query is assigned to a variable query the records will be displayed from customer table as per given condition if state is equal to Goa	
20	Explain following segment of PHP code $result=mysql_query("select * from product_table where price between 1000 and 2000"); $result is a variable used to assign a value returned by mysql_query. The given query will display all the fields from product_table where the price of item is between 1000 and 2000 including the value 1000,2000.	2
21	Explain briefly the ERD (Entity relationship Diagram) of Student admission System with neat E-R Diagram.  The above ER diagram **Entities and Attributes** **1. STUDENT** *(Rectangle)* • student_id *(Primary Key)* • first_name • last_name • date_of_birth • gender • address • phone • email **2. PARENT/GUARDIAN** *(Rectangle)* • parent_id *(Primary Key)* • full_name • relationship • phone • email • address **3. APPLICATION** *(Rectangle)*	4

	• application_id *(Primary Key)* • application_date • academic_year • status • student_id *(Foreign Key)* **4. CLASS** *(Rectangle)* • class_id *(Primary Key)* • class_name • grade_level • academic_year • description **5. DOCUMENT** *(Rectangle)* • document_id *(Primary Key)* • document_type • file_path • upload_date • application_id *(Foreign Key)* **6. ADMISSION** *(Rectangle)* • admission_id *(Primary Key)* • admission_date • status • application_id *(Foreign Key)* **7. SECTION** *(Rectangle)* • section_id *(Primary Key)* • section_name • class_id *(Foreign Key)* • teacher_id *(Foreign Key)* **8. TEACHER** *(Rectangle)* • teacher_id *(Primary Key)* • full_name • phone • email • subject	
22	Construct MySQL queries for the following. Table : emp_tbl. Fields: Employee_id, Name, Address, salary, 1. To list Employee id, name whose salary exceeds 10000. 2. To enter a data record. 3. To display all the records. 4. To remove Address column. 1 To list Employee id and name whose salary exceeds 10000: SELECT Employee_id, Name FROM emp_tbl	4

	WHERE salary > 10000; 2 To enter a data record: INSERT INTO emp_tbl (Employee_id, Name, Address, salary) VALUES (employee_id_value, 'employee_name', 'employee_address', employee_salary_value); 3 To display all the records: SELECT * FROM emp_tbl; 4 To remove the Address column: ALTER TABLE emp_tbl DROP COLUMN Address;	

23	Explain while loop with example.
	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");
	?>
		4

24	Write PHP code to input a sentence using form and count number of words. Page 1 : <html> <head><title>word num</title> </head> <body> <form name="form1" action="word.php" method="post"> Enter Words : <input type="text" name="text1"> <input type="submit" value="submit" name="submit"> </form> </body> </html> Page 2 : <html>	4

```
<head><title>word num </title>
</head>
<body>
<?php
$n=$_POST['text1'];
$t=1;
for($i=0;$i<=strlen($n);$i++)
{
$v=substr($n,$i,1);
if($v==' ')
{
$t++;
}
}
echo "There are ".$t." words in the sentence";
?>
</body>
</html>
```

25 Write PHP code to delete a record from the table. 4

Database: Customer
Table: customerinfo
Fields: customerid, name, mobileno, address.

Customerid:

Delete

After deleting record print a report in the format given below

Customerid	Name	Mobileno	Address

```
<html>
<head>
   <title>Delete and Display Records</title>
</head>
<body>
   <h2>Delete and Display Records</h2>

   <form method="post">
      Enter Customer ID to delete: <input type="text" name="customerid">
      <input type="submit" value="Delete">
   </form>
```

```
<?php
// Database connection settings
$host = "your_host";
$username = "your_username";
$password = "your_password";
$database = "Customer";

// Establish database connection
$conn = mysqli_connect($host, $username, $password, $database);

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

if (isset($_POST["customerid"])) {
    // Get the customer ID from user input
    $customerid = $_POST["customerid"];

    // Prepare and execute the delete query
    $deleteQuery = "DELETE FROM customerinfo WHERE customerid = '$customerid'";
    if (mysqli_query($conn, $deleteQuery)) {
        echo "Record is Deleted successfully<br><br>";
    } else {
        echo "Error deleting record: " . mysqli_error($conn);
    }
}

// Display all remaining records
$selectQuery = "SELECT * FROM customerinfo";
$result = mysqli_query($conn, $selectQuery);

if (mysqli_num_rows($result) > 0) {
    echo "<h2>Remaining Records</h2>";
    echo "<table border='1'>
            <tr>
                <th>Customer ID</th>
                <th>Name</th>
                <th>Mobile No</th>
                <th>Address</th>
            </tr>";

    while ($row = mysqli_fetch_assoc($result)) {
        echo "<tr>
                <td>{$row['customerid']}</td>
                <td>{$row['name']}</td>
                <td>{$row['mobileno']}</td>
                <td>{$row['address']}</td>
              </tr>";
    }

    echo "</table>";
} else {
    echo "No records found";
```

```
    }

    // Close the database connection
    mysqli_close($conn);
    ?>
</body>
</html>
```

25 Write a PHP code to calculate interest and total amount on deposits for bank customers. 4

Database : Customer

Table : Bank

Fields : Custid, name, deposit

Calculations : Interest = Deposit * 6%

Total Amount = Deposit + Interest

Print a report in the following format :

Cust_id	Name	Deposit	Interest	Total Amount

```
<html>
<head>
    <title>Bank Report</title>
</head>
<body>
    <h2>Bank Report</h2>

    <table border="1">
        <tr>
            <th>Cust_id</th>
            <th>Name</th>
            <th>Deposit</th>
            <th>Interest</th>
            <th>Total Amount</th>
        </tr>

        <?php
```

```
// Database connection settings
$host = "your_host";
$username = "your_username";
$password = "your_password";
$database = "Customer";

// Establish database connection
$conn = mysqli_connect($host, $username, $password, $database);

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}

// Retrieve data from the Bank table
$selectQuery = "SELECT Custid, name, deposit FROM Bank";
$result = mysqli_query($conn, $selectQuery);

if (mysqli_num_rows($result) > 0) {
    while ($row = mysqli_fetch_assoc($result)) {
        $custId = $row["Custid"];
        $name = $row["name"];
        $deposit = $row["deposit"];
        $interest = $deposit * 0.06; // 6% interest
        $totalAmount = $deposit + $interest;

        echo "<tr>
                <td>$custId</td>
                <td>$name</td>
                <td>$deposit</td>
                <td>$interest</td>
                <td>$totalAmount</td>
```

```
                </tr>";
            }
        } else {
            echo "<tr><td colspan='5'>No records found</td></tr>";
        }

        // Close the database connection
        mysqli_close($conn);
        ?>
    </table>
</body>
</html>
```

GOA BOARD OF SECONDARY & HIGHER SECONDARY EDUCATION

ALTO – BETIM, GOA

PROFORMA FOR ANALYSIS OF QUESTION PAPER

Subject: Web Technology **Year of Examination: 2026-27**

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
25	24	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 Q10 - each with 1 mark

   Question 11, 12, 13, 14, 15,16,17,18,20 and 20 answer in 2 to 3 sentences 2 Marks Each

   Question 21, 22, 23, 24 and 25 answer in long answers Long Answer 4 Marks

7. **General format**

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

   Q1 to Q25

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 alloted	Time in min.
Q1	K	D.C	VSA	ENGLISH	Definite	Easy	1	2
Q2	U	D.C	VSA		Definite	Easy	1	2
Q3	U	D.C	VSA		Definite	Easy	1	2
Q4	U	D.C	VSA		Definite	Easy	1	2
Q5	K	MYSQL B	VSA		Definite	Easy	1	2
Q6	A	MYSQL B	VSA		N.Definite	Average	1	2
Q7	K	MYSQL A	VSA		Definite	Easy	1	2
Q8	K	MYSQL A	VSA		Definite	Easy	1	2
Q9	K	PHP A	VSA		Definite	Easy	1	2
Q10	U	PHP A	VSA		Definite	Average	1	2
Q11	U	D.C	SA		Definite	Easy	2	4
Q12	U	MYSQL. B	SA		Definite	Easy	2	4
Q13	U	MYSQL. B	SA		Definite	Easy	2	4
Q14	U	MYSQL. A	SA		Definite	Average	2	4
Q15	U	MYSQL. A	SA		Definite	Average	2	4
Q16	A	PHP .A	SA		Definite	Easy	2	4
Q17	A	PHP.A	SA		Definite	Easy	2	4
Q18	K	PhpConnectivity	SA		N.Definite	Average	2	4
Q19	U	PhpConnectivity	SA		Definite	Difficult	2	4
Q20	U	PhpConnectivity	LA		N.Definite	Difficult	2	4
Q21	U	D.C	LA		Definite	Average	4	12
Q22	A	MYSQL B	LA		ND	Average	4	12
Q23	U	MYSQL A	LA		Definite	Average	4	12
Q24	A	PHP A	LA		ND	Difficult	4	12
Q25	A	PhpConnectivity			Definite	Difficult	4	12

A. Weightage to Objectives:

Sr. No.	Objectives	Weightage	
		Marks	Percentage
1	Knowledge	10	20%
2	Understanding	22	44%
3	Application	18	36%
4	Skill		

B. Weightage to Content/Subject Units

Sr. No.	Units	No. of Questions	Marks	Percentage
1	Database Concepts	6	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	10	10	20%
2	Short Answer Type (SA-I,SA-II)	2	10	20	40%
3	Long Answer Type(LA)	4	5	20	40%
4					
	Total			50	100%

E. Language of Questions :

Definiteness	No. of questions	Marks	Percentage
Definite	20	37	74%
Partly Definite			
Not Definite	5	13	26%

F. Difficulty Level

Levels of difficulty	No. of Questions	Marks	Percentage
Easy	13	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

Duration: - 2 hour **Subject: Web Technology**

Maximum marks: - 50

Objectives → / ↓ 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	VSA	SA-I	SA-II	LA	
Database Concept	4(1)						1(2)	1(4)									10
MySql Basic	1(1)						2(2)		1(1)			1(4)					10
MYSQL Advanced & PHP Basic	2(1)						2(2)	1(4)									10
PHP Advanced	1(1)								1(1)		2(2)	1(4)					10
MYSQL PHP Connectivity			1(2)				2(2)					1(4)					10
Total	9(10)				9(22)				7(18)								25(50)

Note: Figures outside the brackets indicate the number of questions and figures within brackets indicate marks.
For example, 4(2). *Indicates option