

Virudhunagar District

Common Quarterly Examination - 2023

Standard - 12

Computer Applications

PART - I

- | | | |
|---|------------------------------------|---------------------|
| 1. Microsoft | 2. Ctrl+W | 3. Zoom Tool |
| 4. ER Diagram | 5. Entity Relationship | 6. php |
| 7. functionname() | 8. if statement | |
| 9. initialization, condition, increment | | 10. Exit check loop |
| 11. form | 12. radio button | 13.4 |
| 14. Hackers | 15. Radio Frequency Identification | |

PART –II(Q.No 21 Compulsory)

16. Animation is the process displaying still images so quickly so that they give the impression of continuous movement.

17. Editing means making changes to the text. Editing encompasses many tasks, such as inserting and deleting words and phrases, correcting errors, and moving and copying text to different places in the document.

18. ACID Properties – The acronym stands for Atomicity, Consistency, Isolation and Durability. Atomicity follows the thumb rule “All or Nothing”, while updating the data in database for the user performing the update operation. Consistency ensures that the changes in data value to be constant at any given instance. Isolation property is needed during concurrent action. Durability is defined as the system’s ability to recover all committed actions during the failure of storage or the system.

19. A dynamic webpage on the other hand is a page whose content can change each time it is viewed.

20. We can create an indexed array in PHP,

- By enclosing a comma-separated list of values in square brackets
- By using the array() function.

21. Output

1

2

3

4

5

22. Validation is a process of checking the input data submitted by the user from client machine. There are two types of validation available in PHP. Client-Side Validation, Server Side Validation.

23. 1. mysql_connect() Function 2. mysql_close() Function

3. mysql_select_db() Function 4. mysql_affected_rows() Function

5. mysql_connect_error() Function

24. The common uses of computer network are 1. Communication 2. Resource sharing 3. Information sharing

PART III (Question no 30 Compulsory)

25. Any text or object that you place on the master page will appear on the entire document pages to which the master is applied. It shortens the amount of time because you don't have to create the same objects repeatedly on subsequent pages. Master Pages commonly contain repeating logos, page numbers, headers, and footers. They also contain

non printing layout guides, such as column guides, ruler guides, and margin guides.

26. Cardinality is defined as the number of items that must be included in a relationship, i.e. number of entities in one set mapped with the number of entities of another set via the relationship. Three classifications in Cardinality are one-to-one, one-to-many and Many-to-Many.



In the above example we have two entities Person and Vehicle. If we consider the current vehicle, the driver is operating, then we have one-to-one relationship between Person and Vehicle. In the above example, Customer places the Order is a one-to-many relationship. Here the customer can place multiple orders and the order is related to only one customer. The example of many-to-many relationship is Students registering the Courses. A student can register more than one courses and A course can be registered by many students. Hence it is many-to-many.

27. Three types of PHP Tags are available. They are as follows 1. Php Default Tags 2. Short open Tags 3. HTML Script embed Tags

28. An associative array is a data structure that stores a collection of key value pairs. The key are used to identify the values and the values can be of any data type. The keys in an associative array are often called labels because they label or identify the corresponding values.

We create an associative array in PHP,

- By enclosing a comma-separated list of key value pairs in square brackets
- By using the array() function.

29. Syntax:

```
if(Condition 1)
```

```
{
```

```
//code to be executed if condition 1 is true;
}
elseif(Condition 2)
{
//code to be executed if condition 1 is false and condition2 is true;
}
elseif(Condition 3)
{
//code to be executed if condition 1 and condition 2 are false and
condition3 is true;
}
else
{
// code to be executed if all conditions are false }
}
```

30.While loop:

- While loop first evaluates the condition before executing the code block.If the condition is true the code block is executed.If the condition is false the loop is terminated.
- The while loop may not execute the code block at all if the condition is false from the beginning.

Dowhile loop:

- On the other hand dowhile loop first executes the code block and then evaluates the condition.If the condition is true the code block is executed again.If the condition is false the loop is terminated.
- The dowhile loop on the other hand guarantees that the code block will be executed at least once even if the condition is
- false.

31. Post method: The input data sent to the server with post method is stored in the request body of the client's HTTP request.

Get method: The input data sent to the server with post method via url address is known as query string. All input data are visible by user after they click the submit button.

32. Benefit of Social Networks

(i) Group information sharing over long distances

Although friends and family members can keep in contact via mobile phone calls or by text messages, social nets suggestion a much richer environment for staying connected.

(ii) Broadcast announcements:

Quick and easy way to spread information of emergencies and natural calamities. Business people can market their products through these networks.

(iii) Fostering diversity of thought:

Some critics of social networks point out that online communities attract people by similar interests and backgrounds.

when the people with different opinions do get together on online, many discussions seem to degenerate into personal attacks and so-called "flame wars." It can be argued, by online debates are healthy in the long run.



























33. There are four total layers of TCP/IP protocol, each of which is listed below with a brief description.

1. Network Access Layer – concerned with building packets.
2. Internet Layer – describes how packets are to be delivered.
3. Transport Layer – ensure the proper transfer mission of data.
4. Application Layer – application network processes.

These processes include File Transfer Protocol (FTP), Hypertext Transfer Protocol (HTTP), and Simple Mail Transfer Protocol (SMTP).

PART IV

34.b)

Tool	Toolbox	Cursor	Use
Pointer Tool			Used to select, move, and resize text objects and graphics.
Text tool			Used to type, select, and edit text.
Rotating tool			Used to select and rotate objects.
Cropping tool			Used to trim imported graphics.
Line tool			Used to draw straight lines in any direction.
Constrained line tool			Used to draw vertical or horizontal lines.
Rectangle tool			Used to draw squares and rectangles.
Rectangle frame tool			Used to create rectangular placeholders for text and graphics.
Ellipse tool			Used to draw circles and ellipses.
Ellipse frame tool			Used to create elliptical placeholders for text and graphics.
Polygon tool			Used to draw polygons.
Polygon frame tool			Used to create polygonal placeholders for text and graphics.
Hand tool			Used to scroll the page (an alternative to the scroll bar)
Zoom tool			Used to magnify or reduce an area of the page.

34)a) Multimedia Production Team:

Managing team members in a way to get maximum outcome with high degree of efficiency is mandatory in multimedia production.

The fine quality high-end multimedia production application requires a specialize team comprises of the following members:

Production Manager:

In a multimedia production, the role of production manager is to define, and coordinate, the production of the multimedia project in time and with full quality.

The production manager should be an expertise in the technology expert, good at proposal writing, good communication skills and budget management skills.

Also must have experience in human resource management and act as an efficient team leader.

Content Specialist:

Content specialist is responsible for performing all research activities concerned with the proposed application's content.

Program content refers to projects information, graphics, data or facts presented through the multimedia production.

Script Writer:

Video and film scripts represents a linear sequence of events. The script writer visualizes the concepts in three dimensional environments and if needed uses the virtual reality integration into the program.

Text Editor:

The content of a multimedia production always must flow logically and the text should always be structured and correct grammatically. Text and narration is an integrated part of the application.

Multimedia Architect:

The multimedia architect integrates all the multimedia building blocks like graphics, text, audio, music, video, photos and animation by using an authoring software.

Computer Graphic Artist:

The role of Computer Graphic Artist is to deal with the graphic elements of the programs like backgrounds, bullets, buttons, pictures editing, 3-D objects, animation, and logos etc.

Audio and Video Specialist:

The roles of these specialists are needed for dealing with narration and digitized videos to-be added in a multimedia presentation. They are responsible for recording, editing sound effects and digitizing.

Computer Programmer:

The computer programmer writes the lines of code or scripts in the appropriate language.

These scripts usually develops special functions like developing the software to give the size and shape of video windows, controlling peripherals and so on.

Web Master:

The responsibility of the web master is to create and maintain an Internet web page. They converts a multimedia presentation into a web page.

Final multimedia product is ready for consultation is a joint effort of the entire team. Initially, the production manager identifies the project content, while the web master provides access to a wide range of community through web-services.

35)a) DBMS Database Models: The database technology came into existence in terms of models with relational and object- relational behavior. The major database models are listed below:

(i) Hierarchical Database Model:

The famous Hierarchical database model was IMS (Information Management System), IBM's first DBMS. In this model each record has information in parent/child relationship like a tree structure. The collection of records was called as record types, which are equivalent to tables in relational model. The individual records are equal to rows. In the above model we have many advantages like less redundant data, efficient search, data integrity and security. This model also has few limitations like complex to implement and difficulty in handling many to many relationships.

(ii) Network model: The first developed network data model was IDS (Integrated Data Store) at Honeywell. Network model is similar to Hierarchical model except that in this model each member can have more than one owner. The many to many relationships are handled in a better way. This model identified the three database components Network schema, Sub schema and Language for data management. Network schema – schema defines all about the structure of the database. Sub schema – controls on views of the database for the user. Language – basic procedural for accessing the database. The major advantage of this model is the ability to handle more relationship types, easy data access, data integrity and independence. The limitation of network model is difficulty in design and maintenance.

(iii) Relational model: Oracle and DB2 are few commercial relational models in use. Relational model is defined with two terminologies Instance and Schema. Instance – A table consisting of rows and columns Schema – Specifies the structure including name and type of each column. A relation (table) consists of unique attributes (columns) and tuples (rows).

(iv) Object-oriented database model: This model incorporates the combination of Object Oriented Programming (OOP's) concepts and database technologies. Practically, this model serves as the base of Relational model. Object oriented model uses small, reusable software known as Objects. These are stored in object oriented database.

35)b)Operators in PHP: Operator is a symbol which is used to perform mathematical and logical operations in the programming languages. Different types of operator in PHP are:

1. Arithmetic operators
2. Assignment operators
3. Comparison operators
4. Increment/Decrement operators
5. Logical operators, and
6. String operators.

1. Arithmetic operators: The arithmetic operators in PHP perform general arithmetical operations, such as addition, subtraction, multiplication and division etc.

2. Assignment Operators: Assignment operators are performed with numeric values to store a value to a variable. The default assignment operator is “=”. This operator sets the left side operand value of expression to right side variable.

3. Comparison Operators: Comparison operators perform an action to compare two values. These values may contain integer or string data types (Number or Strings).

4. Increment and Decrement Operators: Increment and decrement operators are used to perform the task of increasing or decreasing variable's value. This operator is mostly used during iterations in the program logics.

5. Logical Operators: Logical Operators are used to combine conditional statements.

6. String Operators: Two operators are used to perform string related operations such as Concatenation and Concatenation assignment.

36)a) User Defined Function:

1. User can create their own functions.
2. User Defined Function (UDF) in PHP gives a privilege to user to write own specific operation inside of existing program module.
3. Two important steps the Programmer has to create for users define Functions are:

Function Declaration: A user-defined Function declaration begins with the keyword “function”.

User can write any custom logic inside the function block.

Syntax:

```
function functionName()
{
Custom Logic code to be executed;
}
```

Function Calling: A function declaration part will be executed by a call to the function. Programmer has to create Function Calling part inside the respective program.

Syntax: functionName();

Example Programs .Function with no parameter,Function with 1 and 2 parameter.

36)b) Switch Statement: This is multiple branching statement where based on a condition,the control is transferred to one of the many possible points.

The switch statement is used to specify multiple conditions. It runs a different code block for different conditions.

Syntax:

```
switch (expression)
{
case value 1:
//code to be executed if expression=value1;
break;
.....
default:
//code to be executed if expression is not equal to any of the values;
}
```

37)a)<?php

```
$i=10;
while($i<=20)
{
    echo $i."<br>";
    $i++;
}
```

37)b)File handling is an important activity of all web application development process. Files are processed for different tasks using the following events:

1. PHP Open a File,
2. PHP Read a File,
3. PHP Close a File,
4. PHP Write a File,
5. PHP Appending a File and
6. PHP uploading a File.

1.Open a File: fopen() is a system function available in PHP. This function helps to open a file in the server.

2.Read a File: The fread() function reads from an open file. The file object comes from fopen function.

3.Close a File: The fclose() function is used to close an opened file. The file object comes from fopen function.

4.write a File: The fwrite() function is used to write to a file.

5.Appending a File The file_put_contents() function is used to Append to a file.

6.File Upload:File upload is the best feature to select one file from the local machine to server machine.

38)a)The common uses of computer network are

- Communication
- Resource sharing
- Information sharing

Communication:

Using computer networks, we can interact with the different people with each other all over the world. It provides a powerful communication among widely separated employees, team, section. They can easily communicate at very low cost via mobile, social media, telephone, e-mail, chatting, video telephone, video conferencing, SMS, MMS, groupware etc...

Resource sharing: It allows all kind of programs, equipment's and available data to be accessed by anyone via network irrespective of the physical location of the resource. Simply resource sharing is sharing such as printers, scanner, PDA, fax machine, and modems.

Information sharing:

Using computer network, any application or other software can be stored at a central computer or server. The software can be shared among other computers of the network. It provides high reliability and backup can also be stored at one location for easy availability in case of crash.

38)b) OSI Model: Open System Interconnection (OSI) model was found in the year 1974, general framework that enables network protocols along with software and systems to be developed based on general set of guidelines. It describes the standards for the inter-computer communication.

OSI Layers:

(i) Physical Layer: This is the 1st layer, it defines the electrical and physical specifications for devices.

(ii) Data Link Layer: It is the 2nd layer and it guarantees that the data transmitted are free of errors. This layer has simple protocols like "802.3 for Ethernet" and "802.11 for Wi-Fi".

(iii) Network Layer: It is the 3rd layer determining the path of the data packets. At this layer, routing of data packets is found using IP Addressing.

(iv) Transport Layer: It is the 4th layer that guarantees the transportation/sending of data is successful. It includes the error checking operation.

(v) Session Layer: It is the 5th layer, identifies the established system session between different network entities. It controls dialogues between computers. For instance, while accessing a system remotely, session is created between your computer and the remote system.

(vi) Presentation Layer: It is the 6th layer that does the translation of data to the next layer (Prepare the data to the Application Layer). Encryption and decryption protocols occur in this layer such as, Secure Socket Layer (SSL).

(vii) Application Layer: It is the 7th layer, which acts as the user interface platform comprising of software within the system.

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