

COMPUTER APPLICATION

Time: 3 Hrs

Max.Marks:70

PART – I

i. All questions are compulsory. (15×1= 15)

ii. Choose the most appropriate answer from the given four alternatives and write the options code with the corresponding answer

1. Musical Instrument Digital Identifier
2. Ctrl + N* (It should be Ctrl + O)
3. Record
4. INSERT
5. // or #
6. 3
- 7.
8. For
9. Query
10. Node
11. Transmission control protocol
12. .(dot)
13. Tim Berners Lee
14. (a) and (b)
15. Wireless Fidelity

PART – II

Answer any six questions. Question No. 24 is compulsory. (6 × 2 = 12)

16. How will you delete text in PageMaker file?

Ans:

You can easily delete a character, or word, or block of text.

To delete a character, do the following:

1. Position the insertion point to the left of the character to be deleted.
2. Press Delete key on the keyboard.
- (or)
3. Position the insertion point to the right of the character to be deleted.
4. Press Backspace key on the keyboard.

17. What is text editing?

Ans:

Editing means making changes to the text. When you edit a document, you revise its 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. What is Primary Key?

Ans:

The candidate key that is chosen to perform the identification task is called the primary key and any others are Alternate keys. Every tuple must have, by definition, a unique value for its primary key.

OR

This key of relational table identifies each record in the table in a unique way.

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19. What is trace file?

Ans:

A significant output of simulation is the trace files. Trace files can document every incident that happened in the simulation and are used for examination.

20. What is form validation in PHP?

Ans:

Validation of HTML form data is important to protect your form from hackers and spammers!

21. Write short notes about fopen() function in PHP

Ans:

fopen() is a system function available in PHP. This function helps to open a file in the server. It contains two parameters one for the file and the other one specifies in which mode the file should be opened (Read/Write).

Syntax:

```
$file_Object= fopen("FileName", "Read/WriteMode") or die("Error Message!");
```

Example:

```
<?php
```

```
$myfile = fopen("Student.txt", "r") or die("Unable to open file!");
```

```
?>
```

22. What is flame wars?

Ans:

When we have mixed group of people coming together online, many discussions arise which lead to personal attacks called "flame wars."

OR

Flame wars are nothing that lengthy exchange of angry or abusive messages between users of an online forum or other discussion area.

23. What are the types of URL?

Ans:

Depending on the location of the document the URL is divided into 2 types

1. Absolute URL
2. Relative URL

24. Write the syntax for : for each loop in PHP.

Ans:

```
for each ($array as $value)
{
code to be executed;
}
```

PART - III

Answer any six (6) questions. Question No. 33 is compulsory.

(6 × 3 = 18)

25. What is animation? Write its types.

Ans:

Animation is the process displaying still images so quickly so that they give the impression of continuous movement. In animation the screen object is a vector image in animation.

1. Path Animation
2. Frame Animation

26. What is Master Page?

Ans:

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 nonprinting layout guides, such as column guides, ruler guides, and margin guides.

27. What is the purpose of web server and web browser?

Ans:

Web server:

A Web server is Software that uses HTTP (Hypertext Transfer Protocol) to serve the files that form Web pages to users

Web browser:

A Web browser (commonly referred to as a browser) is a software application for accessing information on the World Wide Web. Each individual Web page, image, and video is identified by a distinct URL, enabling browsers to retrieve and display them on the user's device.

28. What are the four major components of EDI?

Ans:

There are four major components of EDI. They are

- Standard document format
- Translator and Mapper
- Communication software
- Communication network

29. Write the features of looping structure.

Ans:

In programming it is often necessary to repeat the same block of code a given number of times, or until a certain condition is met. This can be accomplished using looping statements

30. Write about database connection in PHP.

Ans:

Before accessing MySQL Database, connect to Database Server machine via PHP scripting language using Mysql_connect() Function.

Syntax:

```
mysql_connect("Server Name ","User Name","Password","DB Name");
```

31. What is Intranet?

Ans:

It is a private network within an enterprise to share company data and computing resources between the employees.

OR

It is a website used by organizations to provide a place where employees can access company related information.

32. Write short note on mining in crypto currency.

Ans:

The cryptocurrency units are created by the solution of cryptographic tasks called mining. The miners not only generate new monetary units, but also initiate new transactions to the block chain. As a reward, they will receive new Bitcoins.

33. What is user defined function? Write the syntax.

Ans:

User Defined Function

User Defined Function (UDF) in PHP gives a privilege to user to write own specific operation inside of existing program module. 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;  
}
```

Answer all the questions.

(5 × 5 = 25)

34.

(a) Explain different file formats in Multimedia files.

Ans:

a) Text Formats TM

- RTF: Rich Text Format is the primary file format introduced in 1987 by Microsoft

b) Image Formats TM

- GIF (Graphics Interchange Format): GIF is a compressed image format. Most of the computer color images and backgrounds are GIF files.
- JPEG (Joint Photographic Experts Group) :JPEG was designed to attain maximum image compression. It uses lossy compression technique.





























c) Audio File Formats TM

- WAV (Waveform Audio File Format): It is the most popular audio file format in windows for storing uncompressed sound files. TM
- MP3 (MPEG Layer-3 Format): MPEG Layer-3 format is the most popular format for storing and downloading music.

d) Digital Video File Formats TM

- AVI (Audio/Video Interleave):AVI is the video file format for Windows. Here sound and picture elements are stored in alternate interleaved chunks in the file. TM
- MPEG (Moving Picture Experts Group) : MPEG is a standard for generating digital video and audio compression under the International Standards Organization (ISO) by the group of people.

(b) Explain the tools in PageMaker toolbox.

Table 2.2 Tool Box Usage			
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.

35.

(a) What is Array? Explain multidimensional array in PHP.

Ans:

Array is a concept that stores more than one value of same data type (homogeneous) in single array variable.

They are 3 types of array concepts in PHP.

- Indexed Arrays,
- Associative Array and
- Multi-Dimensional Array

Multidimensional Arrays

A multidimensional array is an array containing one or more arrays. PHP understands multidimensional arrays that are two, three, four, five, or more levels deep. However, arrays more than three levels deep are hard to manage for most people.

Example:

```
<?php
// A two-dimensional array
$student=array
(
array("Iniyan",100,96),
array("Kavin",60,59),
array("Nilani",1313,139)
);
echo $$student[0][0].": Tamil Mark: ".$student [0][1].": English mark: ".$student [0]
[2].":<br>";
echo $$student[1][0].": Tamil Mark: ".$student [1][1].": English mark: ".$student [1]
[2].":<br>";
echo $$student[2][0].": Tamil Mark: ".$student [2][1].": English mark: ".$student [2]
[2].":<br>";
?>
```

(b) Explain switch statement in PHP.

Ans:

Switch Case:

The switch statement is used to perform different actions based on different conditions.

Syntax:

```
switch (n) {  
case label1:  
code to be executed if n=label1;  
break;  
case label2:  
code to be executed if n=label2;  
break;  
case label3:  
code to be executed if n=label3;  
break;  
...  
default:  
code to be executed if n is different from all labels;  
}
```

Example:

```
<?php  
$favcolor = "red";  
switch ($favcolor) {  
case "red":  
echo "Your favorite color is red!";  
break;  
case "blue":  
echo "Your favorite color is blue!";  
break;  
case "green":  
echo "Your favorite color is green!";  
break;  
default:  
echo "Your favorite color is neither red, blue, nor green!";  
}  
?>
```

36.

(a) Explain the process of file handling in PHP.

Ans:

- File handling is an important part of any web application. You often need to open and process a file for different tasks. ™
- File handling is needed for any application. For some tasks to be done file needs to be processed.™
- File handling in PHP is similar as file handling is done by using any programming language like C.

Five major operations can be performed on file are: ™

- Creation of a new file. ™
- Opening an existing file. ™
- Reading data from a file. ™
- Writing data in a file. ™
- Closing a file.

Steps for Processing a File ™

- Declare a file pointer variable. ™
- Open a file using fopen() function. ™
- Process the file using the suitable function. ™
- Close the file using fclose() function.

(b) Explain MySQLi Queries with examples.

Ans:

Definition and Usage ™

- The mysqli_query() function performs a query against the database. ™
 - The mysqli_query function is used to execute SQL queries. ™
 - The function can be used to execute the following query types;
- Insert
 - Select
 - Update
 - delete

Syntax

mysqli_query("Connection Object","SQL Query")

HERE, ™

“mysqli_query(...)” is the function that executes the SQL queries. ™

“\$query” is the SQL query to be executed™

“\$link_identifier” is optional, it can be used to pass in the server connection link

Example:

```
$con=mysqli_connect(“localhost”,“my_user”,“my_password”,“Student_DB “);™
```

```
$sql=“SELECT student_name,student_age FROM student”;mysqli_query($con,$sql);
```

37.

(a) Discuss about OSI reference model with its layers.

Ans:

OSI Model™

Open System Interconnection (OSI) model was found in the year 1934, 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:

1. Physical Layer:

- It is the 1st layer.
- It defines the electrical and physical specifications for devices.

2. Data Link Layer:

- It is the 2nd layer.
- 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”.

3. Network Layer:

- It is the 3rd layer.
- It is used to determine the path of the data packets.
- At this layer, routing of data packets is found using IP Addressing.

4. Transport Layer:

- It is the 4th layer.
- It guarantees the transportation/sending of data is successful.
- It includes the error checking operation.

5. Session Layer:

- It is the 5th layer
- It is used to identify 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.

6. Presentation Layer:

- It is the 6th layer.

- It 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).

7. Application Layer:

- It is the 7th layer.
- It acts as the user interface platform comprising of software within the system.

(b) Explain the types of network cables.

Ans:

There are many types of cables available in the networking. Here we discuss about six different cables.

Coaxial Cables:

- This cable is used to connect the television sets to home antennas and transfer the information in 10 mbps.
- It is divided into thinnet and thicknet cables.
- These cables have a copper wire inside and insulation is covered on the top of the copper wire to provide protection to the cable.
- These cables are very difficult to install and maintain, because they are too big to carry and replace.
- The coaxial cable got its name by the word “coax”. Nowadays coaxial cables are also used for dish TV where the setup box and the television is connected using the coaxial cable only.
- Some of the cable names are Media Bridge 50-foot Coaxial cable, Amazon basics CL2- Rated Coaxial cables, etc.

Twisted Pair Cables:

- It is type of cable with two or more insulated wires twisted together.
- It started with the speed of 10 mbps (10BASE-T cable is used).
- Then the cable is improved and the speed was higher and went to 100 mbps and the cable was renamed as 100BASE-TX.
- Then finally the cable improved more made to 10 gbps and named as 10GBASE-T.
- This twisted cable has 8 wires which are twisted to ignore electromagnetic interference.
- Also the eight wires cannot be placed in a single unit there could be a difficult in spacious, so it is twisted to make as one wire.
- There are two types of twisted pair cables, Unshielded Twisted Pair (UTP) and Shielded Twisted pair (STP).
- The UTP is used nowadays as modern cables for Internet and they are lower in cost and installation and maintenance is easy compared to the coaxial cables.
- STP is similar to UTP, but it is covered by additional jackets to protect the wires from External interference.

Fiber Optics:

- This cable is different from the other two cables.
- The other two cables had an insulating material at the outside and the conducting material like copper inside.
- But in this cable it is of strands of glass and pulse of light is used to send the information.
- They are mainly used in Wide Area Network (WAN)/The WAN is network that extends to very large distance to connect the computers.

Ethernet Cables:

- Ethernet cable is the most common type of network cable mainly used for connecting the computers or devices at home or office.
- This cable connects wired devices within the local area network (LAN) for sharing the resources and accessing Internet.

38.

(a) **What are the advantages and disadvantages of E-Commerce to a consumer?**

Ans:

Advantages

- E-Commerce system is operated on all days and all the day.
- It is able to conduct business 24 x 7.
- People can interact with businesses at the time of their convenience.
- Speed is a major advantage in E-Commerce.
- Advanced Electronic communications systems allow messages to reach across the world instantaneously
- The Internet is too easy to 'shop around' for products and services that may be more cheaper and effective It provides an opportunity to buy at reduced costs.
- It is possible to, explore the Internet, identify original manufacturers, thereby bypass wholesalers and achieve a cheaper price.
- Customers can have wide choice by comparing and evaluating the same product at different websites before making a purchase decision.
- Customers can shop from home or anywhere at their convenience.
- Payments can also be made through online.

Disadvantages

- In E-Commerce, customer should wait between placing the order and having the product in hand. Some • The doubts about the period of returning, will the returned goods reach source in time, refunds, exchange and postage make one tiresome.
- Privacy issues are serious in E-Commerce.

- In E-Commerce generating consumer information is inevitable. Not all the companies use the personal information they obtained to improve services to consumers.
- Many companies misuse the information and make money out of it.
- It is true that privacy concerns are a critical reason why people get cold feet about online shopping Physical product disputes are a major disadvantage in E-Commerce.
- In online shopping, we would see only the pictures the seller had chosen for us.
- Internet need to survive the trip from the supplier to the consumer. This makes the customers turn back towards traditional supply chain arrangements
- It is pretty hard to knock on their door to complain or seek legal recourse. Further, even if the item is sent, it is easy to start bothering whether or not it will ever arrive on time.

(b) Differentiate Digital Signature and Digital Certificates.

Ans:

Digital signature	Digital certificate
A digital signature is a mechanism that is used to verify that a particular digital document, message or transaction is authentic.	A digital certificate is a computer file which officially approves the relation between the holder of the certificate and a particular public key.
Digital signatures are used to verify the trustworthiness of the data being sent	Digital certificates are used to verify the trustworthiness of the sender.
Digital signature is to ensure that a data remain secure from the point it was issued and it was not modified by a third party.	Digital certificate binds a digital signature to an entity
It provides authentication, non-repudiation and integrity	It provides authentication and security.
A digital signature is created using a Digital Signature Standard (DSS). It uses a SHA-1 or SHA-2 algorithm for encrypting and decrypting the message.	A digital certificate works on the principles of public key cryptography standards (PKCS). It creates certificate in the X.509 or PGP format.
The document is encrypted at the sending end and decrypted at the receiving end using asymmetric keys.	A digital certificate consist of certificate's owner name and public key, expiration date, a Certificate Authority's name , a Certificate Authority's digital signature