ANSWER KEY
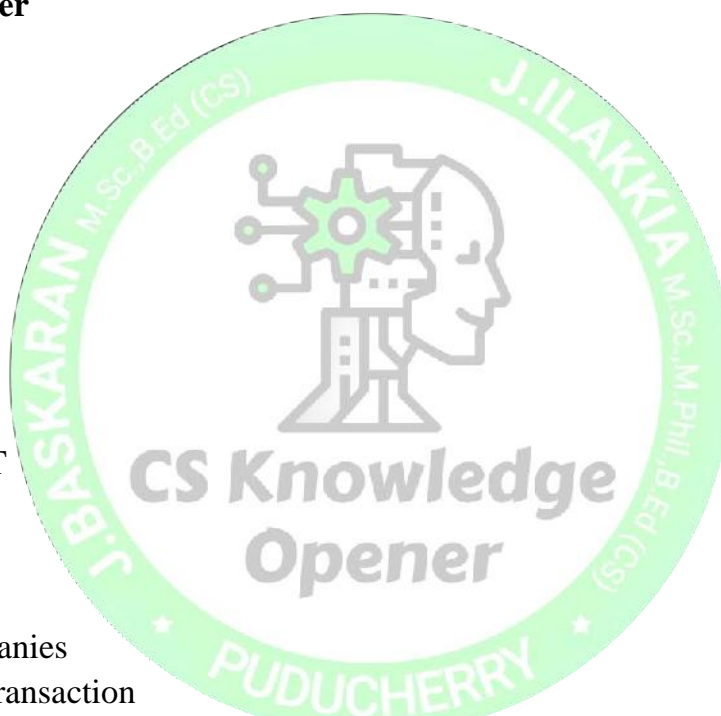# XII- COMPUTER APPLICATIONS 2020

PART - I

Choose the Correct answer   **15x1=15**

1. d) 16
2. a) AIFF
3. d) F9
4. c) View → Rulers
5. b) Ctrl + A
6. c) Primary Key
7. c) 0
8. d) do-while loop
9. d) 7
10. b) $_GET and $_POST
11. d) Version 5.0
12. c) .org
13. c) RJ45
14. c) Internet based companies
15. b) Secure Electronic Transaction

PART – II

Answer the following question   **(2)**

16.

Free source software	Open source software
Freeware usually refers to proprietary software that users can download at no cost,	It refers to the software that is developed and tested through open collaboration.
But whose source code cannot be changed.	Anyone with the academic knowledge can access, inspect, modify and redistribute the source code

17. The term multimedia comprises of two words, "multi" and "medium". **(2)**

- Multi ⟶ Many and Media ⟶ Medium.

- Multimedia is an integration of **many types of media** like **text, graphics, images, audio, animation, video** etc on a single medium in the same information unit.

18. Desktop publishing (abbreviated DTP) is the creation of page layouts for documents using DTP Software. **(2)**

19. PHP (Hypertext Pre-processor) is a one of the important server side Web and general purpose scripting language invented by Rasmus Lerdorf in 1994. It is very simple and lightweight open source server side scripting language. **(2)**

20. Three types of PHP Syntax are available. **(2)**

  1. Default Syntax

  2. Short open Tags

  3. HTML Script embed Tags

21. If statement executes a statement or a group of statements if a specific condition is satisfied by the user expectation. When the condition gets **false (fail)** the else block is executed. **(2)**

22. The common uses of computer network are **(2)**

- Communication
- Resource sharing
- Data (or) software sharing
- Money saving

23. Less consumption of power is used by mobile devices **(2)**

 Huge capacity than a large transmitter, at single frequency .

 Covering large area than a single transmitter.

24. 3-D Secure is a secure payment protocol on the Internet, developed by Visa to increase the level of transaction security, and adapted by MasterCard. **(2)**

PART – III

Answer the following question

25. SQL commands are classified into five major categories depending on their functionality. **(3)**

- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Data Query Language (DQL)
- Transaction Control Language (TCL)
- Data Control Language (DCL)

26. To resize a Text block **(3)**

- Click on **the Pointer tool.**

- Click either the left or right corner handle on the bottom of the text block and drag.

- A red triangle in the bottom window shade means there is more text in the text block than is visible on the page.

27. The Function can be divided in to three types as follows **(3)**

- User defined Function,

- Pre-defined or System or built-in Function, and

- Parameterized Function.

28. The Basic HTML form control: **(3)**

- Text inputs

- Buttons

- Checkbox

- Radio box

- File Select

- Form Tag

29. Before accessing MySQL Database, connect to Database Server machine via PHP scripting language using **Mysqli_connect() Function**. **(3)**

<u>**Syntax:**</u>

mysqli_connect("Server Name ","User Name","Password","DB Name");

- This function requires four parameters to connect to database server.

- Database Server name, Database username, password and Database Name.

30.

HTTP	HTTPS
A protocol used between a web client and a web server protects non-secure data transmissions. The core protocol of the World Wide Web.	A protocol used between a web client and a web server permits secure data transmissions.

31. URL **(Uniform Resource Locator)** is the address of a document on the Internet. **(3)**

- URL is made up of four parts- protocols, hostname, folder name and file name.

- Each part has its own specific functions.

-

URL is divided into two types:

- **Absolute URL**   -   Absolute URL is the complete address of a document on the Internet.
- **Relative URL**   -   Relative URL is the partial address of a document on the Internet.

32. Business to Business (B2B)   **(3)**

Business to Consumer (B2C)

Business to Government (B2G)

Consumer to Business (C2B)

Consumer to Consumer (C2C)

Consumer to Government (C2G)

Government to Business (G2B)

Government to Consumer (G2C)

Government to Government (G2G)

33. The Electronic Data Interchange (EDI) is the exchange of business documents between one trade partner and another electronically.

It is transferred through a dedicated channel or through the Internet in a predefined format without much human intervention.

<u>EDI Types:</u>
● Direct EDI
● EDI via VAN
● EDI via FTP/VPN, SFTP, FTPS
● Web EDI
● Mobile EDI

PART – IV

Answer the following question

34. A) The phases for development of complex multimedia projects are,   **(5)**

  1. Conceptual Analysis and Planning:

- Conceptual analysis identifies a appropriate theme, budget and content availability on that selected theme.
- Copyright issues also are considered in this phase.

  2. Project design:

- Once the theme is finalized objectives, goals, and activities are drawn for the multimedia project.
- General statements   ⟶   Goals.
- Specific statements   ⟶   Objectives.
- Activities are series of actions which contribute to the Project design phase.

3. Pre-production:

Based on the planning and design the project is developed.

STEPS IN PRE-PRODUCTION:

❖ **Budgeting** for each phases like consultants, hardware, software, travel, communication and publishing is estimated for all the multimedia projects.

❖ **Multimedia Production Team** comprises of members playing various roles and responsibilities like Script writer, Production manager, Editor, Graphics Architect, Multimedia Architect and Web Master.

❖ **Hardware Selection** includes the selection of fastest CPU, RAM and huge monitors, sufficient disc for storing the records.

❖ **Software Selection and File Formats** depends on the funds available for the project.

❖ **Defining the Content** is the "stuff" provided by content specialist to the multimedia architect

❖ **Preparing the structure:**

- A detailed structure must have information about all the steps.
- This structure defines the activities, responsible person and the start/end time for each activity.

4. Production:

- In the multimedia application, after the pre-production activities, the production phase starts.
- This phase includes the activities like background music selection, sound recording and so on.
- A pilot project is ready by this time.

5. Testing:

- The complete testing of the pilot product is done before the mass production to ensure that everything is right, and avoiding the failure after launch.
- It is tested using different browsers, and deployed in the server if it is a local multimedia.
- After the testing processes are over, the product is incorporated with valid suggested changes.

6. Documentation:

- User documentation is a mandatory feature of all multimedia projects.
- The documentation has all the valuable information's starting from the system requirement till the completion of testing.

7. Delivering the Multimedia Product: Are best delivered on CD/DVD or in the website.
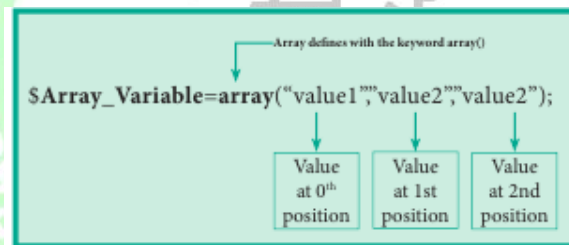
(OR)

B) Drawing a Star using Polygon tool   **(5)**

- **To draw a Star**

    1. Click on the **Polygon tool** from the toolbox. The cursor changes to a **crosshair**.

    2. Click and drag anywhere on the screen. As you drag, a Polygon appears.

    3. Release the mouse button when the Polygon is of the desired size.

    4. Choose **Element > Polygon Settings** in the menu bar. Now Polygon Settings dialogue box
       appears.

    5. Type 5 in the Number of sides text box.

    6. Type 50% in Star inset textbox.

    7. Click OK. Now the required star appears on the screen.

35. A) Indexed Arrays   **(5)**

- An array is defined using the keyword "array".

- Each element of line array is assigned on index values which commences from 0 and ends with n-1.

- The user can access the array element using the array name followed by index value.

Example:

```php
<?php
$teacher_name=array("Iniyan", "Kavin", "Nilani");
echo "The students name are " . $teacher_name[0] . ", " . $$teacher_name[1] . " and " .
$teacher_name[2] . ".";
?>
```

Associative Arrays

- Associative arrays are a key-value pair data structure.

- Instead of having storing data in a linear array, with associative arrays you can store your data in a
  collection and assign it a unique key which you may use for referencing your data.

Associative Array Syntax

array(*key=>value,key=>value,key=>value,etc.*);

key = Specifies the key (numeric or string)

value = Specifies the value

Example:

<?php

$teacher_name=array("Iniyan", "Kavin", "Nilani");

echo "The students name are " . $teacher_name[0] . ", " . $$teacher_name[1] . " and " .

$teacher_name[2] . ".";

?>

(OR)

B) Switch Case   **(5)**

- The switch case is an alternative to the if.. elseif..else statement which executes a block of code corresponding to the match.

- Switch statement uses single expression for multiple choices.

- It test only for equality.

- It evaluates only character or integer value.

- Use break to prevent the code from running into the next case automatically.

- The default statement is used if no match is found.

➢ **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!";
}
?>
```

➢ **Output:**

Your favorite color is red

➢ **Workingof the Program:**

- First we have a single expression favcolor (a variable), that is evaluated once.

- The value of the expression is then compared with the values for each case in the structure.

- If there is a match, the block of code associated with that case is executed.

36. A) Loop structures in PHP is an iterative control structures that involves executing the same block of code for a specified number of times.   **(5)**

For Loop:

- The for loop is used when you know how many times you want to execute a statement or block of statements.

Syntax:

```
for(init counter; test counter; increment counter){
code to be executed;
}
```

Parameters:

- **init counter:** Initialize the loop initial counter value

- **Test counter:**

    - Evaluated for every iteration of the loop.

- If it evaluates to TRUE, the loop continues.
  - If it evaluates to FALSE, the loop ends.
- **Increment counter**: Increases the loop counter value.

Example:

```php
<?php
for ($i = 0; $i<= 5; $i++) {
echo "The number is:" . $i . "<br>";
}
?>
```

Output:

The student number is:1

The student number is:2

The student number is:3

The student number is:4

The student number is:5

➢ Here in this example, the condition becomes true until ($student_number <= $Student_count), the loop executes for 5 times and display the result.

(OR)

B) File handling is an important activity of all web application development process. **(5)**

❖ Files are processed for different tasks using the following events:

- PHP Open a File,
- PHP Read a File,
- PHP Close a File,
- PHP Write a File,
- PHP Appending a File and
- PHP uploading a File.

1) PHP Open a File

- fopen() is a system 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!");

2) PHP Read a File:

- The fread() function reads from an open file. The file object comes from fopen function.

Syntax:

      fread($file_Object,filesize("FileName"));

3) PHP Close a File:

- The fclose() function is used to close an opened file.
- The file object comes from fopen function.

Syntax:

      fclose($file_Object);

4) PHP write a File:

- The fwrite() function is used to write to a file.

Syntax:

      fwrite($myfile, $txt);

5) PHP Appending a File

- The file_put_contents() function is used to Append to a file.

Syntax:

      file_put_contents(file,data,mode,context)

6) File Upload:

- The function **"file_uploads = On"** allows the users to upload files to the server.

37. A) In PHP Scripting language many functions are available for MySQL Database connectivity and executing SQL queries.

- ●Mysqli_connect() Function
- ● Mysqli_close() Function
- ● mysqli_select_db() Function
- ● mysqli_affected_rows() Function
- ● mysqli_connect_error() Function
- ● mysqli_fetch_assoc() Function

i) Mysqli_connect() Function:

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

Syntax:

      mysqli_connect("Server Name ","User Name","Password","DB Name");

- This function requires four parameters to connect to database server.

- Database Server name, Database username, password and Database Name.

ii) Mysqli_close() Function:

- **mysqli_close()** Function is used to close an existing opened database connection between PHP scripting and MySQL Database Server.

Syntax:

> mysqli_close("Connection Object");

iii) Mysqli_select_db() function:

The **mysqli_select_db()** function is used to change the default database for the connection.

Syntax:

> mysqli_select_db(*connection,dbname);*

iv) Mysqli_fetch_assoc() Function:

- The **mysql_fetch_assoc()** function returns a row from a recordset as an associative array.

- This function gets a row from the mysql_query() function and returns an array on success, or FALSE on failure or when there are no more rows.

Syntax:

> mysql_fetch_assoc(data)

v) Mysqli_connect_error() Function:

- The **mysqli_connect_error()** function returns the error description from the last connection error, if any.

Syntax:

> mysqli_connect_error()*;*

vi) Mysqli_affected_rows() Function:

- The **mysqli_affected_rows()** function returns the number of affected rows in the previous SELECT, INSERT, UPDATE, REPLACE, or DELETE query.

Syntax: **mysqli_affected_rows(connection*);***

(OR)

B) Transmission Control Protocol (TCP): Provides reliable connection oriented transmission between two hosts. It guarantees delivery of packets between the hosts.   **(5)**

Internet Protocol (IP): routable protocol which uses IP addresses to deliver packets. It is an unreliable protocol, does not guarantee delivery of information.

Frequent TCP/IP Protocols:

HTTP – It is used between a web client and a web server and it guarantees non-secure data transmissions.

HTTPS – It is used between a web client and a web server ensures *secure* data transmissions.

FTP – It is used between computers for sending and receiving file.

Domain Names and TCP/IP Addresses:

The address for any website is not as easy as to remember, domain name are used instead. For example, **216.58.216.164** is one of the IP address for Google and **google.com** is the domain name.

The Different Layers of TCP/IP

- ➢ **Network Access Layer** -   Concerned with building packets.
- ➢ **Internet Layer**   -   Describes how packets are to be delivered.
- ➢ **Transport Layer**   -   Ensure the proper transmission of data.
- ➢ **Application Layer**   -   Application network processes.

38. A) TYPES OF NETWORK CABLES   **(5)**

1. Coaxial Cables:

- **Coaxial Cables** is used to connect the television sets to home antennas.
- This cable is used to transfer the information in 10 mbps.
- The cable 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.

2. Twisted Pair Cables:

- **Twisted Pair Cable** is type of cable with two or more insulated wires twisted together.
- It has 8 wires which are twisted to ignore electromagnetic interference.
- It started with the speed of 10 mbps (10BASE-T cable is used) and improved the speed to 100 mbps (100BASE-TX) and finally the cable improved more made to 10 gbps (10GBASE-T).
- There are two types of twisted pair cables,
  - o Unshielded Twisted Pair (UTP)
  - o Shielded Twisted pair (STP).

3. Fiber Optics:

- **Fibre Optic Cable** is strands of glass and pulse of light is used to send the information.

- The optic cable uses light to transmit the information from one place to another.

- These cables are placed in deep underground to avoid any damage to the cables.

- They are mainly used in Wide Area Network (WAN).

- There are two types of fibre optic cables are available are

  - ➢ Single-mode (100BaseBx)
  - ➢ Multimode (100BaseSX)

4. USB Cables:

- The **Universal Serial Bus** are used to connect keyboard, mouse and other peripheral devices.

- Micro USB is a miniaturized version of the USB used for connecting mobile devices.

5. Serial and Parallel cables:

- The **Serial and Parallel interface cables** are used to connect the Internet to the system.

- The system will have both serial port and parallel port.

- The serial port will send 1 bit at one time whereas the parallel port will send 8 bit at one time.

6. 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.

(OR)

B) Electronic Account transfer and its types.   **(5)**

- With the advent of computers, network technologies and electronic communications a large number of alternative electronic payment systems have emerged.

- These include ECS (Electronic Clearing Services), EFT (Electronic funds transfers), Real Time Gross Settlement system (RTGS) etc.

ECS (Electronic Clearing Services)

- Electronic Clearing Service can be defined as repeated transfer of funds from one bank account to multiple bank accounts or vice versa using computer and Internet technology.

- Advantages of this system are bulk payments, guaranteed payments and no need to remember payment dates.

EFT (Electronic funds transfers)

- Electronic Funds Transfer (EFT) is the "electronic transfer" of money over an online network.

- The amount sent from the sender's bank branch is credited to the receiver's bank branch on the same day in batches.

Real Time Gross Settlement system (RTGS)

- Real Time Gross Settlement system (RTGS) is a payment system particularly used for the settlement of transactions between financial institutions, especially banks.

- As name indicates, RTGS transactions are processed at the real time.

- RTGS payments are also called as push payments that are initiated ("triggered") by the payer.

J. BASKARAN M.Sc., B.Ed. (C.S)   **J. ILAKKIA M.Sc., M.Phil., B.Ed. (C.S)**
Department of Computer Science   **Department of Computer Science**

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