VIRUDHUNAGAR DISTRICT
SECOND REVISION EXAM, FEBRUARY 2025
STANDARD 12
COMPUTER APPLICATIONS

PART – I

I. Answer all and choose the best answer:

1. Musical Instrument Digital Interface

2. b.file

3. b. entity - Relationship

4. a. .php

5. a. 2

6. b. break

7. b. foreach

8. d. cropping Tool

9. b. cell

10. d. Transmission control protocol

11. d. . (dot)

12. b. RJ 21

13. d. debit card – pay now

14. b. 1996

15. d. EDIFACT

PART – II

II. Answer ANY 6 of the following and question no. 21 is compulsory: 6 X 2 = 12

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

17. State few advantages of Relational databases.
  ➢ The DBMS provides users and programmers with systematic way to create, retrieve, update and manage data."

18. What is an array in PHP and what are its main types?
➢ An array is a special data type. It can hold many values under a single variable name. An array element can be any type of data.
➢ There are three main types of arrays in PHP:
      1. Indexed array 2. Associative array 3. Multi-dimensional array

19. Differentiate – while and do… while loop

While loop	Do..while loop
The while loop first evaluates the condition before executing the code block.	The do...while loop first executes the code block and then evaluates the condition.
The while loop may not execute the code block at all if the condition is false from the beginning.	The do...while loop, on the other hand, guarantees that the code block will be executed at least once, even if the condition is false.

20. What is Validation in PHP?
➢ Validation is a process of checking the input data submitted by the user from client machine.

21. Expand I) HTTP   II) HTTPS   III) FTP
➢ **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.

22. What is the use of Crimping tool?
➢ The crimping tool is a physical tool which is used to connect the patch wire and the Ethernet connector.

23. Write a short note on out-sourcing.
➢ If a company's work is hired to another company, it would be termed as out - sourcing.

24.Write a short note on typo piracy.
➢ Typo piracy is a variant of Cyber Squatting. Some fake websites try to take advantage of users' common typographical errors in typing a website address and direct users to a different website.

> Such people try to take advantage of some popular websites to generate accidental traffic for their websites. e.g. www.goggle.com, www.faceblook.com

PART – III

III. Answer ANY 6 of the following and question no. 33 is compulsory: 6 X 3 = 18

25. How to you insert page numbers in Master pages? Click on Master Pages icon.
1. Then click on Text Tool. Now the cursor changes to I - beam.
2. Then Click on the left Master page where you want to put the page number.
3. Press Ctrl + Alt + P.
4. The page number displays as 'LM' on the left master page.
5. Similarly click on the right Master page where you want to put the page number.
6. Press Ctrl + Alt + P.
7. The page number displays as 'RM' on the right master page, but will appear correctly on the actual pages.

26. What are the datatypes in PHP.
The eight different types of data types in PHP are
      1. Integer   2. Float   3. String   4. Boolean
      5. Array   6. Object   7. Resource 8. NULL

27. Differentiate if statement and if elseif else statement.

if statement	if elseif else statement
If statement executes a statement or a group of statements if a specific condition is satisfied as per the users expectation.	The if ... elseif ... else statement is a conditional statement that allows you to check multiple conditions and run different code based on which condition is true.
This is the simplest PHP's conditional statement .	This type of statement begins with the keyword 'if'. It can be followed by one or more 'elseif'. Finally ends with an 'else' part.

28. Explain the difference between the POST method and GET method of sending data to the server in PHP.
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. It is known as query string.

29 What are the layers available in TCP/IP Reference Model?

There are four total layers of TCP/IP protocol:
1. Network Access Layer - concerned with building packets.
2. Internet Layer - describes how packets are to be delivered.
3. Transport Layer - ensure the proper transmission 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).

30. What are the differences between Absolute URL and Relative URL?

Absolute URL	Relative URL
The complete address of a document on the Internet.	The relative URL is the partial address of a document on the Internet.
It contains all the information that is required to find the files on the Internet.	It contains only a file name or a file name with folder name.
If any of the four parts is missing, then the browser will not be able to link to the specific file. So, all the four parts are very important in absolute URL.	We can use this type of URL when the file is on the same server related to current document.

31. Write about null modem cable.
➢ A cable interconnecting two devices directly is known as a null modem cable.
Example : RS-232 cable is also used for interconnecting two computers without modem.

32. Briefly explain the stored value card and its types.
➢ Stored value card is a type of debit card that is pre-loaded with certain amount(value), with which a payment is made. It is a card that has default monetary value onto it.
➢ The card may be disposed when the value is used, or recharged to use it again.
➢ The major advantage of stored value card is that customers don't need to have a bank account to get prepaid cards.
There are two varieties for stored value card.
1. Closed loop (single purpose): e.g. chennai metro rail travel card.
2. Open loop (multipurpose): e.g. Visa gift cards

33. What will be the output of the following PHP code.
```php
<?php
$array=array("a"=>10,"b"=>20,"c"=>30);
foreach($array as $key=>$value)
{
```

```
    echo $key."=>".$value.;
  }
?>
```

Output:
a=>10 b=>20 c=>30br

PART - IV

34. A) Explain in detail about Production team roles and responsibilities.

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.

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

Script Writer:
  ➢ The script writer visualizes the concepts in three-dimensional environment 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 develop 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 convert a multimedia presentation into a web page. The web master provides access to a wide range of community through web-services. ☐

OR

B) Discuss about OSI reference model with its layers.

OSI Layers:

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

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".

Network Layer:
➢ It is the 3rd layer determining the path of the data packets.
   ➢ This layer is responsible for routing of data packets using *IP Addressing*.

Transport Layer:
      ➢ It is the 4th layer that guarantees the transportation/sending of data successfully.
      ➢ It includes the error checking operation.

Session Layer:
      ➢ It is the 5th layer, identifies the established system session between different network entities.
      ➢ It controls dialogues between computers .

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

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

35. Explain the tools in PageMaker toolbox.

Tool	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.
Constrained line tool	Used to draw vertical or horizontal lines.
Line tool	Used to draw straight lines in any direction.
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.

B) Explain the components used in Ethernet cabling.

1. Patch Cable (Twisted Pair):
- ➢ These Cables are generally made up of 8 wires in different colors.
- ➢ Four of them are solid colours, and the others are striped.
- ➢ Ethernet cables are normally manufactured in several industrial standards such as Cat 3, Cat 5, Cat 6, Cat 6e and cat 7.
- ➢ "Cat" simply stands for "Category," and the following number indicates the version.
- ➢ Latest version denotes faster and higher frequencies, measured in Mhz.
- ➢ Increasing the size of the cable also lead to slower transmission speed. RJ45

Connector:
- ➢ In RJ45 the "RJ" stands for the Registered Jack and the "45" simply refers to the interface standard.
- ➢ The RJ45 connector is a small plastic cube. It has eight pins.
- ➢ It is connected to each end of the Ethernet cable. It is also known as 8P8C connector.
- ➢ These plugs (connector) are inserted into Ethernet port of the network card.

Ethernet Port:
- ➤ Ethernet port is an opening which is a part of an Ethernet card. It accepts RJ45 connector with Ethernet cable.
- ➤ It is found on personal computers, laptops, routers, switches, hubs and modems.
- ➤ Once you inject the plug into the port the two led lights will glow in the computer, one is green and another one is orange.
- ➤ The orange light will start blinking which indicates that the Internet is connected.

Crimping Tool:
- ➤ Crimping is the process of joining two or more pieces of wire to hold each other.
- ➤ Joining RJ45 connector together with twisted pair cable at each end is an essential process in Ethernet cabling which lead the cable to function properly.
- ➤ The crimping tool is a physical tool which is used to connect the patch wire and the Ethernet connector.

36. Explain the function concept in PHP.

Function
- ➤ A Function is a type of sub routine or procedure in a program.

Functions can be divided in to three types:
- ➤ User defined Function
- ➤ Pre-defined or System or built-in Function
- ➤ Parameterized Function.

User Defined Function
- ➤ User Defined Function (UDF) in PHP gives a privilege to user to write their 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; }

Pre-defined or System or built-in Function
- ➤ These are functions that are pre-defined in the PHP language and can be used to perform a variety of tasks, such as calculating the length of a string or sorting an array

Parameterized Function
- ➤ Values can be passed from one function to another function thru parameters. The parameter is also called as arguments, it is like variables. The arguments are mentioned after the function name and inside of the parenthesis. There is no limit for sending arguments, just separate them with a comma notation.

OR

B) Write a note on a. Internet banking b. Mobile banking

a. Internet banking:

➢ Internet banking is a collective term for E-banking, online banking, virtual banking (operates only on the Internet with no physical branches), direct banks, web banking and remote banking.

➢ Internet banking allows customers of a financial institution to conduct various financial transactions on a secure website operated by the banking institutions. This is a very fast and convenient way of performing any banking transactions.

➢ The online banking system will typically connect to the core banking system operated by customers themselves (Self-service banking).

➢ It can be used from anywhere in the world and at any time.

➢ Apart from regular transactions, Internet banking portal provides complete control over all banking demands such as available balance, transaction statements, recent transactions, bill payment, blocking a card in case of theft or loss, information about other bank products like payment cards, deposits, loans etc.

b. Mobile banking:

➢ Mobile banking is another form of net banking. The term mobile banking (also called m-banking) refers to the services provided by the bank to the customer to conduct banking transactions with the aid of mobile phones. These transactions include balance checking, account transfers, payments, purchases, etc.

➢ Transactions can be done at anytime and anywhere.

➢ These transactions include balance checking, account transfers, payments, purchases, etc. Transactions can be done at anytime and anywhere.

37. Write a PHP code to print 1 to 10 , except 5, using continue statement.

```php
<?php
for ($i = 1; $i <= 10; $i++) {
  if ($i == 5) {
    continue; // Skip the current iteration when $i is 3.
  }
  echo "$i \n";
}
?>
```

Output

1
2
3
4
6

7

8

9

10

<div align="center">OR</div>

List all the E-Commerce business models and explain any four briefly.

Business to Consumer (B2C):-

➢ In B2C E-Commerce, commercial transactions take place between business firms and their consumers. It is the direct trade between companies and end - consumers via the Internet.

➢ B2C companies sell goods, information or services to customers through online in a more personalized dynamic environment and is considered as real competitor for a traditional storekeeper

➢ This mode is intended to benefit the consumer and can say B2C E-Commerce works as 'retail store' over Internet.

Business to Government (B2G):

➢ B2G is a business model that refers to business organizations sells products, services or information to Governments or to its administrations.

➢ In other words, when a company get paid for its goods, services by the Government through Internet it is called as B2G model.

e.g. The Government or its administration buys laptops for students.

Consumer to Business (C2B):

➢ C2B can be described as a form of E-Commerce where, the transaction is originated by the consumers. The consumers will fix a requirement or specific price for a service or a commodity.

➢ C2B model, is also called as reverse auction model.

➢ Here, customer bid his price for a service or a product. Then E-Commerce business entity will match the requirement of the consumer to the best possible extent.

Government to Consumer (G2C):

➢ G2C in E-Commerce is very similar to C2G. Here the Government provides platform for its citizens to avail its services and information through the Internet.

➢ The services may be issue of certificates through online.

e.g. https://csc.gov.in/governmenttocitizen.

38. Explain MySQLi Queries with examples.

➢ The main goal of MySQL and PHP connectivity is to retrieve and manipulate the data from MySQL database server.

➢ The SQL query statements help in PHP MySQL extension to achieve the objective of MySQL and PHP connection.

> "mysqli_query" is a function, that helps to execute the SQL query statements in PHP scripting language.

Syntax:

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

Example:

$con=mysqli_connect("localhost","my_user","my_password","Student_DB ");

$sql="SELECT student_name,student_age FROM student";

OR

B)Briefly explain types of EDI.

Direct EDI/Point-to-Point:

> It is also called as Point-to-Point EDI. It establishes a direct connection between various business stakeholders and partners individually.

> This type of EDI suits to larger businesses with a lot of day-to-day business transactions.

EDI via VAN:

> EDI via VAN (Value Added Network) is where EDI documents are transferred with the support of third-party network service providers.

> Many businesses prefer this network model to protect them from the updating ongoing complexities of network technologies.

EDI via FTP/VPN, SFTP, FTPS

> When protocols like FTP/VPN, SFTP and FTPS are used for exchange of EDI based documents through the Internet or Intranet it is called as EDI via FTP/VPN, SFTP, FTPS.

Web EDI

> Web based EDI conducts EDI using an web browser via the Internet. Here the businesses are allowed to use any browser to transfer data to their business partners. Web based EDI is easy and convenient for small and medium organizations.

Mobile EDI:

> When smartphones or other such handheld devices are used to transfer EDI documents it is called as mobile EDI.

> Mobile EDI applications considerably increase the speed of EDI transactions.

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