SESSIONAL PAPERS

Q1 What is the web-browser. Explain in detail?

Answer The web browser in an application software to explore WWW (World Wide Web). It provides an interface between the server and the client and it requests to the server for web documents and services. It works as a compiler to render HTML which is used to design a webpage. Whenever we search for anything on the internet, the browser loads a web page written in HTML, including text, links, images and other items such as style sheets and JavaScript functions. Google chrome, Microsoft edge, Mozilla Firefox, and Safari are examples of web browsers.

How does a Web Browser Works?

A web browser helps us find information anywhere on the internet. It is installed on the client computer and requests information from the web server such a type of working model is called a client server model.

TRISHNA
Book Centre
Mob.: 9827640600

SESSIONAL PAPERS

The browser receive information through HTTP protocol. In which transmission of data is defined. when the browser received data from the server, it is rendered in HTML to user-readable form and information is displayed on the device screen.

Some popular Web browsers:

1. Google Chrome

Developed by Google, Chrome is one of the most-widely used web browsers in the world, known for its speed and simplicity.

2. Mozilla Firefox

Developed by the Mozilla Foundation, Firefox is an open source browser that is known for its primary features and customization options.

3. Microsoft Edge

Developed by Microsoft, Edge is the default browser on window 10 and is known for its integration with other Microsoft products.

...S' INA
...ok Centre
...: 9827640600

SESSIONAL PAPERS

Q2. What is the Operating System? Explain in detail.

Answer Operating System lies in the category of system software. It basically manages all the resources of the computer. An operating system acts as an interface between the software and different parts of the computer or the computer hardware. The operating system is designed in such a way that it can manage the overall resources and operations of the computer.

Operating system is a fully integrated set of specialized programs that handle all the operations of the computer. It contains controls and monitors the execution of all other programs that reside in the computer, which also includes application programs and other system software of the computer. Examples of operating systems are Windows, Linux, Mac OS, etc.

...S'INA
Book Centre
ob.: 9827640600

SESSIONAL PAPERS

Objectives of Operating System

1. Convenient to use: One of the objectives is to make the computer system more convenient to use in an efficient manner.

2. User Friendly: To make the computer system more interactive with a more convenient interface for the users.

3. Easy Access: To provide easy access to users for using resources by acting as an intermediary between the hardware and its users.

4. Managment of resources: For managing the resources of a computer in a better and faster way.

5. Control and Monitoring: By keeping track of who is using resource, granting resource requests, and mediating conflicting requests from different programs and users.

6. Fair sharing of resources: Providing fair and efficient sharing of resources between the users and programs.

'I..S' INA
Book Centre
Mob.: 8827640600

SESSIONAL PAPERS

Functions of Operating System:

Resource Managment: The operating system manages and allocates memory, CPU time, and other hardware resources among the various programs and processes running on the computer.

Process Managment: The operating system is responsible for starting, stopping and managing processes and programs. It also controls the scheduling of processes and allocates resources to them.

Memory Managment: The operating system manages the computers primary memory and provides mechanisms for optimizing memory usage.

Security: The operating system provides a secure environment for the user, applications and data by implementing security policies and mechanisms such as access controls and encryptions.

Book Centre
Mob. : 9827640600

SESSIONAL PAPERS

Job Accounting: It keeps tract of time and resources used by various jobs or users.

File Managment: The operating system is responsible for organizing and managing the file system, including the creation, deletion and manipulation of files and directories.

Networking: The operating system provides networking capabilities such as establishing and managing network connections, handling network protocols, and sharing resources such as printer and files over a network.

Device Managment: The operating system manages input/output devices such as printers, keyboards, mouse and displays. It provides the necessary drivers and interfaces to enable communication between the devices and the computer.

User Interface: The operating system provides a user interface that enables users to interact with the computer systems. This can be a Graphical User Interface (G.U.I), a Comman line Interface (C.L.I) or a combination of both.

...INA
Book Centre
Mob.: 9827640600

Q3 Explain HTML 4 in detail?

Answer: HTML stands for Hyper Text Markup Language. It is the standard markup language used to create web pages. HTML is a combination of Hypertext and Markup language. Hypertext defines the link between web pages. A markup language is used to define the text document within the tag to define the structure of web pages.

This language is used to annote (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most markup languages (eg. HTML) are Human readable. The language uses tags to define what manipulation has to be done on the text.

It uses HTML tags and attributes to describe the structure and formatting of a web page. HTML consists of various elements that are responsible for telling search engines how to display page content.

PASSIONAL PAPERS

T.S. NA
Book Centre
Mob.: 9827640600

SESSIONAL PAPERS

HTML Example

```
<html>
  <head>
    <title> Example HTML code </title>
  </head>

  <body>

    <h2> Sample HTML </h2>
    <p> Sample paragraph </p>

  </body>

</html>
```

Features of HTML

1. HTML is easy to learn.
2. It is platform independent.
3. Images, videos, and audio can be added to a web page.
4. Hypertext can be added to the text.
5. It is a markup language.

JAISWAL Book Centre Mob. : 9827640600

PREVIOUS YEAR QUESTION PAPERS

Advantages of HTML

1. HTML is used to build websites

2. It is supported by all browsers.

3. It can be integrated with other languages like CSS, JavaScript etc.

Disadvantages of HTML

1. HTML can only create static web pages. For dynamic web pages, other languages have to be used.

2. A large amount of code has to be written to create a simple web page.

3. The security feature is not good.

RUSHNA
Book Centre
Mob.: 9827640600

Q4 Define awareness about digital India portal?

Answer: Digital India portal has been launched by the Government of India to include all the services on a single portal. The project is also emphasized by the Department of Electronics and Information Technology. this project runs with the coordination and support of the central and state government.

Digital India portal provides a platform to the merchant at very low investment so that they can enter into the field of e-commerce or digitalisation.

Vision of Digital India Portal

The vision of digital India portal or Digital India program is to transform India into a digitally empowered society. In today's internet era, almost all the work is being done through online medium to quickly reach various information to the people.

ESSIONAL PAPERS

NA Book Centre Mob.: 9827640600

SESSIONAL PAPERS

Digital India Portal scheme and service

1. AADHAR
2. BHARAT BROADBAND NETWORK (BBNL)
3. CENTER FOR EXCELLENCE FOR INTERNET OF THINGS (COE-IT)
4. CERT-IN
5. COMMON SERVICE CENTERS (CSCS)
6. CYBER SWACHHTA KENDRA
7. DEEN DAYAL UPADHYAYA GRAM JYOTI YOJANA
8. DIGILOCKER
9. DIGISEVAK
10. IRCTC CONNECT
11. AGRIMARKET APP
12. BETI BACHAO BETI PADHAO
13. E-PANCHAYAT
14. BHIM
15. MYGOV
16. E-GRANTHALAYA
17. AADHAR ENABLED PAYMENT SYSTEM (AEPS)
18. PAHAL (DBTL)
19. SMART CITIES
20. PRADHAN MANTRI KAUSHAL VIKAS YOJANA

VAISHNA
Book Centre
Mob.: 9827640600

SESSIONAL PAPERS

Q5 Write short note on,

(A) UNIX

Unix is a powerful, multi-user, multitasking operating system developed in the late 1960s at Bell labs by Dennis Ritche and ken thompson. It's known for its robustness, flexibility, and portability across different hardware platforms. Unix introduced concepts like hierarchical file system, shell scripting and networking protocols, shaping the modern computing landscape. Its variants like linux, mac OS continue to be widely used in servers, workstations and embedded systems world wide.

(B) kernel

The kernel is the core component of an operating system responsible for managing system resources, facilitating communication between hardware and software, and ensuring the smooth operation of the entire system. It provides essential services such as process managment, memory managment, device managment and system call handling. Essentially the

S.S. INA
Book Centre
Mob.: 9827640600

kernel acts as a bridge between the user-level applications and the hardware, enabling them to interact efficiently and securely.

(c) Four input or Output device.

1. keyboard: A keyboard is a primary input device that allows users to input text, commands and other data into a computer or device by pressing keys. It typically consists of alphanumeric keys, function keys, and special keys like enter, shift and Control.

2. Mouse: A mouse is a pointing device that enables users to interact with graphical user interfaces by moving a cursor on the screen and clicking on icons, buttons and menus. It typically has two buttons and a scroll wheel for navigation.

3. Touchscreen: A touchscreen is a display that can detect and respond to touch gestures, allowing users to interact directly with the screen without the need for a separate input device like a mouse or keyboard. It is commonly used in smartphones, tablets and some

PROFESSIONAL PAPERS

JAIN Book Centre Mob.: 9827640600

laptops.

4. Trackpad: A trackpad also known as touchpad is a builtin input device commonly fand on laptops. It functions similarly to a mouse, allowing users to move a cursor on the screen by sliding their fingers across the surface of the trackpad and perform various gestures for navigation and control.

Q6 Explain C.S.S. in Detail?

Answer: The full name of C.S.S. is Cascading style sheets is a computer language that is used to make website beautiful and attractive. C.S.S. is used by web-designer and programmers to add and change color, font, aninnation, and size in HTML website. C.SS. is used to improve user interface in HTML website. HTML is like scleton of website and C.SS. is the beauty of website. In HTML C.S.S. is used in three ways, Through inline C.S.S. through external C.SS. and through internal style sheet.

MAHAKAL Stationery BHOPAL 9691022641

SESSIONAL PAPERS

1. Inline C.S.S: is used inside HTML tags only but for this we have to use style attribute.

Example:

```
<p style="color:red;"> this is a paragraph
</p>
```

This way of using C.S.S. is not commonly used because it creates managing code difficult.

2. Internal C.S.S. : To write internal C.S.S we have to create a style tag in head of html document.

Example:

```
<html>
  <head>
    <title> Internal C.S.S. </title>
    <style>
      p {
        background-color : red;
        color : blue;
      }
```

MAHAKAL Stationery SHERPURA 9907028941

स्वच्छ भारत, स्वस्थ भारत

```
    </style>
</head>

<body>

<p> This is paragraph </p>

</body>

</html>
```

External style sheet: To write external C.S.S. we have to create a file with extension .CSS and link the C.S.S. file with html file.

Example:

Include this in HTML file inside head tag.

```
<link rel="stylesheet" href="style.css">
```

SESSIONAL PAPERS

Style.css file

```
h1 {
    color: red;
    font-size: 30px;
    }

p {
    text-transform : uppex case;
    font - weight : bold;
    }
```

Q7 Explain the tool we use in information security?

Answer: Cybersecurity experts use a variety of tools in their job which can be organised into a few categories network security monitoring, encryption, penetration testing, antivirus software, network, Intrusion detection and packet sniffer.

1. Antivirus Software: is a kind of software used to prevent, scan, detect and defeat viruses from a computer.

MAHAKAL Stationery SHERPURA 9907028941

॥स्वच्छ भारत, स्वस्थ भारत॥

SESSIONAL PAPERS

2. Network Intrusion detection: System are used to detect suspicious activity to catch the hackers before damage is done to the network.

3. Encryption: is a form of data security in which information is converted to cypher text only authorised people who have the key can decypher the code and see the plain text.

4. Network Security monitoring: is a term that describes various tools tactics and policies designed to oversee network traffic and devices to quickly identify potential vulnerabilities.

MAHAKAL Stationery SHERPURA 9907028941

SESSIONAL PAPERS

Q8 What are tools we should use in class lecture?

Answer. Some tools we should use in class lecture:

1. Presentation Software
2. White board
3. Interactive board
4. Polling software
5. Video clips
6. Note taking tools
7. Online resources
8. Collaborative tools.

MAHAKAL Stationery SIKERPURA 9907028941

||स्वच्छ भारत, स्वस्थ भारत||