PL-3
Practical No. 2

To distinguish client-server architecture, Internet, www, web browser and web-server.

Problem Statement 1
Study & distinguish the following concepts.

① Client-server architecture, Internet and world-wide web.

Client - Server architecture	Internet & www.
i) It follows a 2-tier architecture	It follows a multi-tier architecture.
ii) Interaction between the client and server takes place via user interface or application.	Interaction between client & server happens via a web browser.
iii) Client server application requires to be pre-installed in the clients device.	Application can run directly over a stable browser.
iv) Does not require cookies to perform.	Requires cookies to perform
v) Secure & has less risk.	Risk is considerably more than Client-server

② Web browser and web Server.

web Browser	web Server
i) It is an application program that displays a www document. It usually uses the internet to access the document.	It is a program or the computer that provides service to other programs called client.
ii) It requests the server for the web documents and services.	It accepts, approves, responds to the request of web browser for document or services.
iii) It acts as an interface between server and client and displays a web-doc to the client.	It is a software that maintains the web apps, generate response and accept client data.
iv) web browser sends an HTTP request and gets an HTTP response	web server gets HTTP requests & sends HTTP responses.
v) There is no processing model	There are 3 types of processing models - Process-based, Thread-based and Hybrid.
vi) It stores cookies for different websites.	It provides an area to store & organise the pages of website.
vii) Its installed on client computer.	It acts on remote machine.

Problem Statement 2
Study and describe the following concepts in your own words:-

1) Hypertext
→ Hypertext is text displayed on a computer display or other electronic devices with references to other text that the reader can immediately access.
→ Hypertext documents are interconnected by hyperlinks.

2) Hyperlink.
→ Hyperlink or link is a reference to data that the user can follow by clicking or tapping
→ A hyperlink points to a whole document or to a specific element within a document.

3) HTTP
→ HTTP or Hypertext Transfer Protocol is the underlying protocol used by the world wide web and this protocol defines how messages are formatted and transmitted, and what actions web servers and browsers should take in response to various commands

4) HTTP Status Codes with meaning
→ HTTP s1 response status codes indicate whether a specific HTTP request has been successfully completed.
→ Responses are grouped in 5 classes:
① Informational responses (100-199)
   100 → continue (so far, so good)
   101 → switching protocol

② Successful Responses (200-299)
→ The request has succeeded. → 200 OK
→ 201 created → new resource created

③ Redirects (300-399)
→ 300 multiple Choice → request has more than one possible response.
→ 301 moved permanently → URL of the requested resource has been changed permanently

④ Client errors (400-499)
→ 400 Bad Request → could not understand request due to syntax.
→ 401 unauthorized.   402 → payment required
→ 403 forbidden   404 → Not found

⑤ Server errors (500-599)
→ 500 internal server error - server encountered a situation it cannot handle.
→ 502 Bad Gateway - got an invalid response.