**Part I**

Brain Warm Up

**ANSWER**

The choice of choosing the correct method depends on various methods used in development of a website. The program used to zip a file, time taken by transmission protocols, file size, file type, also if any compression method is whether already used or not in deploying of the website and also depending on the wat the web-server chooses to send the file.

Example: If server generates response in Base64 encoding, then it increases the number of bytes and the zipped file will take longer to download. This happens because let there be a set of n-bit characters. That is, n bytes (n\*8 bits) gets encoded as (n\*8)/6=8 characters which is slower than sending n bytes of data because more characters are sent.

On zipping an already compressed file will take larger time than expected and in that case too it won’t be a viable option.

Browsers with in-built VPN (like Tor) may download zipped files than regular files at lower speed but at the end file archiver is superior to link-layer transmission. So a zipped text file will be downloaded faster than the same text file.

HTTP request overhead is required before the start of download of each file which may increase the time.

**Part III**

**Research**

**1)** A website comprises of coded data (in html, css, js etc). It is stored on a server. When a user types name of the website (Domain name) in the client (Web browser), the client using DNS (Domain name system) find for the address of the server I which the webpage is uploaded. It interacts with the server using HTTP (Hypertext Transfer Protocol). Then on retrieving the webpages, using TCP/IP protocol, the webpage is displayed on the client side.

**2)** One way of doing so is by making my computer as a localhost and upload my site on it. Check for an open port and asking that person to check through localhost. Or I can set up a Webserver by connecting it to Access point (Wi-Fi).

**3)** They are used of web serving, caching, load balance, proxy-servers etc. Basically, they are used to make fast web servers and controlling web traffic so as to increase performance.