CLASS X - COMPUTER SCIENCE

INTERNET BASICS AND INTERNET SERVICES

Section A: Theoretical Questions

What is Internet?

Answer: Internet is a computer based world-wide communication network, which is composed of large number of smaller interconnected networks.

2. What is a server and web server?

Answer:

<u>Server</u>: A server is a computer or device on a network that manages network resources. A server requests mainly related to resources on the network such as for sharing a resource like printer or sharing storage etc.

There are many types of servers such as a file server or mail server or web server etc.

Web Server: Web server are computers that deliver (serves up) web pages. In technical terms we can say that they handle HTTP request. For example, if you enter the URL http://www.edupillar.com/index.html in your browser, this sends a request to the web server, whose domain name is edupillar.com. The server then fetches the page named index.html and sends it to your browser.

3. What are the services provided by a server?

Answer: The following are the services provided by a server:

- Equipment/Resource Sharing: High quality printers and photocopiers are often designed to connect directly to a network and all authorised users can share the equipment. A server is responsible for such a resource sharing request.
- Centralised File saving for Data Sharing: Server help the user save files to their home directories on the file server, workers can load their documents on any computer connected to network.
- Centralised Virus Scanning: Most file servers run virus scanner constantly to detect and take care of viruses introduced by any user on any computer.
- Centralised Backups: High-capacity tape devices in the file server backup all users work, usually every night. In case of system failure (or worker failure), lost work can be recovered quickly and easily.

4. What are the services provided by a web server?

Answer: The following are the services provided by a web server:

- Serving web pages: The primary function of a web server is to deliver web pages on the request of client using **Hypertext Transfer Protocol (HTTP)**. This means delivery of HTML documents and any additional content may be included by document, such as images, style sheets and script.
- Running Gateway Programs (CGI) and Returning Output: In order to process the request received the web servers need to run special programmes, called CGI programs which help them fetch the required output as per the request made by the client.
- Controlling access to the server: A full implementation of HTTP also includes ways of receiving content from clients. This feature is used for submitting web forms including uploading of files.
- Monitoring and Logging all Access: These web servers also ensure that only authenticated access takes place and thus they keep running many monitoring programs and keep a log of all the activities.
- Server-Side Scripting: Many generic web servers also support server-side scripting using Active Server Pages (ASP), PHP, or other scripting languages.

5. Name some common web servers.

Answer: Some common web server softwares are Apache Webserver, Apache Tomcat, Webserver IIS, The Lighttpd Server, Jigsaw web server, Sun Java system web server, etc.

6. What is a website?

Answer: A website or site is a group of related web pages hosted on a web server and are linked together, share a common interface and design.

7. What are the components of a website?

Answer: the following are the essential components for making a website:

- Webhost: Hosting is where a website is physically located. Group of linked web pages qualify to be called website only when hosted on a web server.
- Address: This is the address of the website also called URL of the site. this is the address which is to be entered in the address bar of the web browser.
- **Homepage**: it is the first page that appears when we were go to a website. It is important as it sets the look and feel of the website and direct viewers to the rest of the pages on the website.
- **Design**: It is overall look and feel the website has as a result of proper use and integration elements like navigation menu, graphics, layout, etc.
- Content: All the web pages contained on the website together make up the contents of the website.

8. What are the differences between a website and a web portal?

<u>Answer</u>:

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S. No.	Web Portal (or Portal)	Website
1	Collection of launch web pages of array of web services like email, search engine, weather, gaming, news, etc.	Collection of web pages offering a specialised content pertaining to the need and goal of the organization owning the website.
2	It is normally an entry point or gateway for using the offered web services.	It is often the final destination to access and use the provided specific information.
3	Generally, link to many other websites that provide these web services.	A website is generally linked to its own webpages.
4	A complete environment for managing and integrating a large number of diverse applications.	Caters to or delivers one specific type of application or content as per the goal of the website.
5	E.g.: Google, Yahoo, Rediff, MSN, etc.	E.g.: cbseacademics.in, marutisuzuki.com, ncert.nic.in, etc.

What are the differences between a webpage and a website?

OR

What is a website? How is it related to a web page and home page?

Answer: A website is composed of group of web pages linked together. A website refers to a central location on a web server that contains more than one web pages. A website may have just the home page, or it may have many other internal web pages in addition to the homepage.

For example, marutisuzuki.com is considered a website which contains many web pages. However, a single web page on this site would be its Home Page or About Us page.

10. Explain the terms?

- Web page
- Home page

Answer:

- Web page: A document using HTTP and that resides on a website is known as a web page.
- Home page: It is the top-level web page of a website. This is the page that is displayed first when a website is opened.

11. What is a web browser? Name some web browsers?

Answer: A web browser is a program that lets you visit different sites on the Net and display their offerings on your own computer. Some of the web browser available in the market are Google Chrome, Microsoft Edge, Safari, Opera, Netscape, Mozilla Firefox.

12. Differentiate between a web browser and web server.

Answer: A WWW client is called a web browser and a WWW server is called a web server.

A web browser navigates through the worldwide web and displays web pages. The web browser requests a page from a web server. The web server makes available the desired page to web browser.

13. What is a URL? Discuss the format of the URL?

Answer: A location on a net server is called a web site. Each website has a unique address called URL (uniform resource locator) example, the website of Microsoft has an address or URL called http://www.microsoft.com.

Format of URL: URLs look like this:

type://address/path

where,

type: specifies the type of server in which the file is located.

address: is the address of the server.

path: specifies the location of file on the server.

For example, in the following URL

address of server http:// encycle.msn.com/getinfo/styles.asp type of path of the file styles.jsp server

14. What are the components of URL?

Answer: The following are the components of the URL or Uniform Resource Locator:

- The type of server or protocol
- The name/address of the server on the Internet
- The location of the file on the server (this location maybe related as a "path" through the file hierarchy) For example, in the following URL

address of server http:// encycle.msn.com/getinfo/styles.asp path of the file styles.jsp type of server

15. What roles do various protocols play on Internet?

Answer:		
Server	Protocol	Information it provides
ftp	File Transfer Protocol	Text and binary files that are organised in a hierarchical structure much like a family tree.
gopher	Transfer Control Protocol/Internet Protocol (TCP/IP)	Text and binary files that are organised in a menu structure.
http	Hypertext Transfer Protocol	Hypertext/hypermedia files (i.e., multimedia documents that contains links to images, sounds, or other multimedia documents on the World Wide Web).

mail	Post Office Protocol (POP) Version 3 and Simple Mail Transfer Protocol (SMTP)	Messages sent via electronic mail. POP3 – Receiving incoming files. SMTP – Sending & distributing outgoing Emails.
news	Network News Transfer Protocol	Newsgroup that are organised in a hierarchical structure.
voip	Voice over Internet Protocol	Making calls on Internet.

16. List some most common domain name.

Answer: Some Most Common Domains

S. No.	Domain ID	Affiliation	Remarks (Used by)
1	.com	Commercial	Commercials firms
2	.edu	Education	Educational firms
3	.gov	Government	Governmental bodies
4	.mil	Military	Military
5	.net	Network Resources	ISPs / networks
6	.org	Organization (usually non-profit)	NGOs, etc.
7	.co	Company	Listed companies
8	.co.in	Company India	Listed companies (India)
9	.tv	Television	TV Channels & companies

17. What are the differences between HTTP and HTTPS?

Answer: The following are differences between HTTP & HTTPS:

HTTP	HTTPS
It is a system for transferring information over Internet without any security feature.	It is a system of transferring information with SSL (Secure Socket Layer) that encrypts and sends information over a secure connection making it hard to steal.
It is useful for sending non-sensitive information.	It is used for transferring/exchanging sensitive information.
It is generally used for blogs, entertainment information and journal articles, etc.	It is used for exchanging information such as login details, bank details, payment detail, etc.
It does not require any additional technology for data transfer/exchange.	It requires additional SSL certificate for secure exchange of data/information through secure connection.

18. What is the significance of HTTP?

Answer: Protocol is a system of rules that defines how something is to be done. In computer terminology, it is usually agreed upon or standardised method for transmitting data and/or establishing communications between different devices.

HTTP: HTTP or the hypertext transfer protocol is an access method (method to access webpage) is used on Internet. it is the primary access method for interacting with Internet. The HTTP is responsible for accessing hypertext document on world wide web. Since worldwide web is a system governing the use of multimedia files on the net and the hypertext files support multimedia, the HTTP generally works in combination of www.

19. What is an email? Explain its advantages and limitations in brief.

Answer: Email or electronic mail is the most widely used tool to send message electronically (i.e., through computers) on a network. The following are the advantages of an E-mail:

- Low cost
- Speed
- Waste reduction
- Ease of use
- Record Maintenance

The following are the limitations of an email:

- Hardware Requirement
- Hard to convey emotions

20. Explain structure of an Email Address?

What are two parts of an Email Address? Which character is used to separate the two parts of an email address?

Answer: The following is the structure of an Email Address:

username@hostname

An email address contains two parts, username and hostname separated by '@' (known as 'at' or 'at the rate of') where.

username: on the left side of @ separator is email account holder's net name.

hostname: on the right side of @ separator is the server or host or network that services email. It is called as e-mail server.

For example: bala_gm@hotmail.com where bala_gm is username and hotmail.com is server.

21. How can one have an e-mail account for sending and receiving email?

Answer: One can have the e-mail account created in two ways. One can have either web based online e-mail account from any of the email Service Provider's such as Gmail, Yahoo mail, Hotmail, etc. or an e-mail account from the ISP's (Internet Service Provider) server, the one who provide Internet Services at home, office, etc. The latter is less prevalent nowadays. The former is now being widely used. In case of ISP, email address is created by ISP and the account owner can use the same. In case of Service Provider,

User can visit Service Provider's website online and create their own account using 'Create New Account' or 'Sign Up' option. The user needs to provide basic information such as name, age, gender, address, city, country, etc. to create new email account

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- The user is also required to provide username of his choice and the password. Username will be provided by Service provider, if available. If not, user must provide alternate username.
- Once the account is created, and user will get the username which will be in the format 'username@hostname', where hostname will be Service provider server name. Example gmail.com is hostname for e-mail server of Gmail.
- Now, users can send and receive e-mail after signing using 'Sign In' or 'Log In' option.

22. Discuss structure of an e-mail?

In an e-mail message, apart from the message text, there are some other texts, there are other fields, which are used for some specific purposes as below:

- T0: the e-mail address of the recipients.
- CC: the e-mail address of the carbon copy recipients (additional recipients) of the mail.
- BCC: the e-mail address of the blind carbon copy recipients (additional recipients) of the mail. These recipients are not visible to other recipients.
- Subject: A short title of the mail, about the content of the e-mail.
- Body: The actual content of the message.
- Attachments: In addition to the actual content, additional supporting files can be attached by using this field. The file to be attached can be a document, audio, video, or any other format. The maximum file size depends on the e-mail Service Provider.

Additionally, below fields are automatically populated:

- FROM: the e-mail address of the sender of the e-mail.
- Date and time: The date and time on which the message is sent from sender's account.



23. How to send an e-mail?

Answer: To send an e-mail, follow these steps:

- Visit e-mail service provider's website or e-mail client on PC or smartphone. Login to your e-mail account using your username and password.
- Locate and click on 'Compose' (or 'New mail', 'Compose mail', 'Write mail')
- Mention the E-mail addresses of the recipients as
 - T0: the e-mail address of the recipients.
 - CC: the e-mail address of the carbon copy recipients (additional recipients) of the mail.
 - BCC: the e-mail address of the blind carbon copy recipients (additional recipients) of the mail. These recipients are not visible to other recipients.
- Mention a brief title in Subject field and type the message or content in the body (in the space provided).
- Attach any file using 'Attach' (or 'Attachment' or attachment sign) option.
- Click on 'Send' (or ➤).

Diagram: same as in answer to Structure of E-mail.

24. How to receive e-mail?

The user needs to login to its e-mail account and go to Inbox folder to view the received e-mails.

25. Discuss e-mail format types.

Answer: the following are the types of e-mail format:

- Plain text (.txt)
 - ⇒ Can be read by anyone, regardless of the e-mail application they use.
 - \Rightarrow Does not offer text formatting options.
 - ⇒ Can have pictures of graphics attached, but not inset.
- Rich text format
 - \Rightarrow Allows you to format a message for font, justification, stylized text and other options.
 - \Rightarrow Pictures or graphics (such as smileys) can be inserted.
 - ⇒ Cannot be read by every type of e-mail application

26. Explain in one line, in an email account what is the use of following folders:

a. Inbox b. Sent Items c. Trash d. Draft

Inbox: It is a folder of e-mail account which contains the received mails. All the e-mail received by users are saved in this folder.

Sent Items: The Sent Items folder contains all the emails which have been sent. If necessary, one can resend messages from this folder.

Trash: All deleted e-mails are saved in Trash folder. If the e-mail is deleted from Trash folder also, the e-mail will not be available.

Draft: The Drafts folder contains saved emails, which you can send or edit later. Once the email is sent, it will be removed from the Drafts folder and moved in the Sent Item folder.

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27. What is replying and forwarding an e-mail?

Reply: As the email is received in Inbox and read, the recipient can choose to reply to the e-mail by using 'Reply' option available in email account. A new message is automatically created, which includes recipient's address in the "To" field. The "Subject" line will include the original text of the subject, preceded by "RE:" which can be changed. The reply message can be typed above the copy of the original message in the main message window (body), and then clicking on "Send."

Reply All: This option is similar to reply option except that the e-mail will be replied to all the email addresses mentioned in 'To' and 'cc'.

Forward: As the email is received in Inbox and read, the recipient can choose to forward the e-mail by using 'Forward' option available in e-mail account. A new message is automatically created, with empty 'To', 'cc' and 'bcc' fields. This fields to be filled with e-mail addresses where the message is to be forwarded. The "Subject" line will include the original text of the subject, preceded by "FW:" which can be changed. The message such as 'For your information' can be typed above the copy of the original message in the main message window (body), and then clicking on "Send."

Differentiate between CC and BCC?

Answer: Both CC (carbon copy) and BCC (blind carbon copy) send copies of an email to additional recipients. The main difference is that CC recipients are visible to others, while BCC recipients are not.

The recipients whose email IDs are mentioned in cc field will receive all additional responses to the email, assuming the "Reply All" function is used. The recipients whose email IDs are mentioned in cc field do not receive additional emails unless you choose to forward

Discuss spam vs. junk e-mail?

Answer: Spam is irrelevant or inappropriate messages sent on the Internet to a large number of people. Junk mail is the unwanted or unsolicited advertising or promotional material received through e-mail. These two terms typically are used interchangeably.

30. How is Facebook different from Twitter?

Answer: Facebook is a social networking site, but Twitter is a microblogging service with limited characters post.

31. What is Chatting? Is it necessary to be online while chatting? Why?

Answer: Chat is online textual conversation wherein the message typed by the sender is instantly made available to the recipient and vice

It is necessary to be online while chatting as the message to be delivered to recipient in real time which is possible only when the participants are online.

What do you understand by chat room?

Answer: A chat room is a website or a part of some online service that provides an online venue for communities of users with common interest to communicate in real time.

33. Define the terms:

e-shopping

e-reservation

e-group

e-learning

Answer:

- e-learning refers to the learning that take place in an electronically simulated environment.
- e-shopping The process of shopping done over the Internet is called online shopping or e-shopping. Both products (such as a mobile handset, apparels, kitchen appliance, etc.) and services (such as mobile plan, banking services, etc.) can be purchased through online shopping.
- e-reservation Making reservations of tickets or hotel rooms or tourist packages etc through Internet is known as e-
- e-group refers to an online community where people discuss on topics of common interests. A message posted in such a discussion is known as a post. All the posts listed together on a discussion board which is viewable to all the members of the group.

34. What is social networking? What are its benefits?

Answer: Social networking is the grouping of individuals into specific groups via online means through social sites. Its benefits are:

- People sharing common interests can connect and form a group.
- Individuals from all around the world can connect and thereby know about new cultures and languages etc.

35. What are the dangers associated with social networking?

Answer: Some dangers associated with social networking are:

- Data theft and viruses' attacks can take place.
- Online predators claim to be someone else which can create problems.
- Cyber blackmailing may take place.

36. Identify domain name(s) and URL(s) from the following list:

- yoga@yoga.com
- b. healthyworld.com
- www.healthyworld.com/old/index.html

www.helpinghands.org/backlink.htm

http://ncert.nic.in

Answer: **b** and **f** are domain names. **c** and **d** are URLs.

37 What is social media?

Answer: Any forum used to share information, news, or opinion that is accessible by many users:

Group websites

- Blogs

Social Networking Sites

38. In an email account, which folder stores the received e-mails?

Answer: Inbox: It is a folder of e-mail account which contains the received mails. All the e-mail received by users are saved in this folder.

39. Explain the terms?

Downloading from Internet

Uploading

5

Answer: **Downloading** refers to the process of transferring files from a net server onto one's local machine. **Uploading** refers to the process of transferring from one's local machine onto a net server. It is the opposite process of downloading.

40. Give the Full Form of?

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• www

FTP

Answer:

www – world wide web

- FTP File Transfer Protocol
- 41. Identify web addresses and e-mail addresses from the following:
 - a. www.kool.com b. Raga100@rediffmail.com c. www.hotspider.co.in d. 123hotshot@elixir.co.in

Answer: ${\bf a}$ and ${\bf c}$ are web addresses. ${\bf b}$ and ${\bf d}$ are e-mail addresses.

42. Mention any two uses of Internet.

The following are the two uses of Internet:

- a. Sending and receiving e-mails instantly.
- b. Sharing information online

43. Distinguish between the web address and e-mail address.

Answer: The following are the differences between web address and e-mail address:

- Every Internet web page has a web address which is known as the URL while an e-mail address is the address of a person's digital mailbox. It is used for the transmission of messages and files through a pc network.
- A web address consists of a protocol, domain name, and occasionally the path to a specific web page or location on a web page whereas consists of a username and a domain name. A domain name represents the service provider while a username represents the unique user identity.
- The web address usually has 'http' or 'www' in their address whereas e-mail addresses have '@' sign which separates username and server name.
- Example of web address is https://google.com and example of email address is abc_xyz@gmail.com.

Section B: Multiple Choice Questions

1.	A website is a collection of						
	a. HTML Documents	b.	Graphic files	C.	Audio & video files	d.	All the above
2.	The page that you normally view a						
	a. Home Page	b.	Master Page	C.	First Page	d.	Banner Page
3.	When you visit a website, it will op						
	a. Web Site	b.	Home Page	C.	Email	d.	ISP
4.	The first page on a website that all	lows y	ou to navigate to other pag	es via	menu system or links, is kno	wn as	
	a. front Page	b.	primary page	C.	home page	d.	first page
5.	Which protocol is used on most UF	RL add	dresses?				
	a. HTML	b.	HTP	C.	HTTP	d.	HLINK
6.	Which is not the part of URL?						
	a. IP address	b.	Port Number	C.	Domain Name	d.	None of these
7.	Which portion of URL (http://www	.some	store.com/firstfloor/shoes.h			r of th	e desired resource?
	a. http	b.	firstfloor	C.	shoes.htm	d.	www.somestore.com
8.	In the URL, http://www.pacein.com	n/nr/n	nain htm. which component i		ies the protocol or the type (of serv	
٥.	a. http	b.	www.pacein.com	C.	/pr/main.htm	d.	none
9.	In the URL, http://www.pacein.com					u.	none
/.	a. http	b.	www.pacein.com	C.	/pr/main.htm	d.	none
10.						u.	none
10.		b.		C.	com/pr/main.htm	d.	none
11	a. http An email can be sent via,	D.	www.pacein.com	C.	com/pr/mam.num	u.	none
11.		h	Tablet	_	Consent Dhama	لم	All the chave
10		b.		C.	Smart Phone	d.	All the above
12.	In an email address, the character						N. CII
	a. Username	b.	E-mail Recipient	C.	Domain name	d.	None of these
13.	In the email address "hithere@edu						
	a. The whole email address	b.	.com	C.	edupillar.com	d.	hithere
14.	field of email-compose bo		_	multi		-	•
	a. cc	b.	То	C.	bcc	d.	Message
15.	Which of the following is not a leg	al don	nain in context of web addre	ess?			
	a. edu	b.	com	C.	tv	d.	work
16.	Chatting on Internet is						
	 Talking face to face 	b.	Talking on phone	C.	Online textual talk	d.	None of these
17.	A room or online forum al	llows	users to communicate throu	igh typ	ed messages which are disp	layed	almost instantly.
	a. Mail	b.	Buddy	C.	Chat	d.	Messages
18.	Online textual talk is called						
	 Video conferencing 	b.	Telephony	C.	Text Phone	d.	Chat
19.	Electronic mail cannot be used for	-					
	a. Sending documents	b.	Sending bulk data (say	C.	Sending attachments	d.	Sending messages
	3		over 2GB)		3		3
20	A two-way video phone conversat	ion an	•	calle	q.		
	a. Video chatting	b.	Video talking	C.	Video conferencing	d.	Video watching
21	Which of the following is not a fea		3	С.	video comerchenig	u.	video watering
۷1.	a. E-mail	b.	Telnet	c.	CPU	d.	Chat
22	Pick the odd one out	IJ.	retriet	L.	GF U	u.	Cilat
۷۷.		h	a hay	_	Twitter	٦	naantal
22	a. Amazon	b.	e-bay	C.	ıwıttei	d.	naaptol
۷3.	The benefits of e-learning: a. Class work can be scheduled		advisants and £2				
	6						

25.	a. e-R a.	Stu All ich o e Reser Ti	idents of the abo ne of the mail vation ickets	can sto ove ne foll is a pr	udy any owing is	where the r	they hand nost used b. For ing resed b. For ing Fesed	ave ad ed fea TP ervation	itures of	a con		nd In c. c.	ternet cc Telnet Touris				d. d.	Use All d	net of these	
	 Buying goods by placing order online is called a. e-commerce b. e-shopping Which of the following is the major reason cited for e-shopping's pop 										C. nular	e-buyi		d.	All of these					
	 which of the following is the major reason cited for e-shoppings poper. Unique offers Price Which of the following is/are immensely popular services of Internet 											c.	Impulse				d.	Convenience		
	a.	e ich o Ap Sei End	-comm f the fo plying f nding e	erce llowir or pa: -mail about	ig is/are ssport o to your	e exam Inline schoo	b. b nple(s) e	logs e-gov	ernance blication		internet	. <i>(</i> C.	Social	netw	orking		d.	e-sh	nopping	
1. 2. 3. 4. 5. 6. 7.	We The The A_	eb pa e e ado	ges on ar lress of is a _ enable	a site e the locat set of es the	are link docume ion of th rules th actual s	ed togents the document of the	gether to lat use ho cument de la neede	hroughTTP. on the d for eceiving	e of exch gh a syst	nange em o wide	e of f web is ca	a 	blanks	<u></u> -						
										A	NSWE	RS								
Sec	tior	n B:	Multij	ole C	hoice	Ques	tions													
1 11 21	.)	d d c	2) 12) 22)	a c c	3) 13) 23)	b c d	4) 14) 24)	С	5) 15) 25)	d	6) 16) 26)		7) 17) 27)		8) 18) 28)	a d c	9) 19) 29)	b b d	:	c c
Sec	tior	n C:	Fill in	the	blanks	i														
 messages, information Uniform resource locator (URL) 'at' or 'at the rate' 									2) 5)	hyper proto		6		3) 6)	web	pages TP				