Que : What you mean by cyber law?

Ans: Cyber law is the area of law that deals with the Internet's relationship to technological and electronic elements, including computers, software, hardware and information systems (**IS**). **Cyber law is** also known as Cyber Law or Internet Law

Cyber law is any law that applies to the internet and internet-related technologies. Cyber law is one of the newest areas of the legal system. This is because internet technology develops at such a rapid pace. Cyber law provides legal protections to people using the internet. This includes both businesses and everyday citizens. Understanding cyber law is of the utmost importance to anyone who uses the internet. Cyber Law has also been referred to as the "law of the internet."

Cyber Law is a rapidly evolving area of civil and criminal law as applicable to the use of computers, and activities performed and transactions conducted over internet and other networks. This area of law also deals with the exchange of communications and information thereon, including related issues concerning such communications and information as the protection of intellectual property rights, freedom of speech, and public access to information.

Que : Write the importance of cyber law?

Ans: Importance of Cyber law. Cyber law is vital because it touches almost all aspects of transactions and behavior on and concerning the Internet, the World Wide Web and **Cyber space**. Primarily it may seem that Cyber laws is a very technical field and that it does not have any attitude to most activities in Cyberspace.

Que : Nature of Cyber Law ?

Ans: Cyber laws prevent or reduce large scale damage from cybercriminal activities by protecting information access, privacy, communications, intellectual property (IP) and freedom of speech related to the use of the Internet, websites, email, computers, cell phones, software and hardware, such as data storage devices.

The increase in Internet traffic has led to a higher proportion of legal issues worldwide. Because cyber laws vary by jurisdiction and country, enforcement is challenging, and restitution ranges from fines to imprisonment.

The rapid growth of the information technology has lead to a situation where the existing laws are challenged. It deals with computer hackers and people who introduce viruses to the computer.

Cyber Law prevents or reduces the damage from cyber-criminal activities by protecting information access, privacy, communications, intellectual property (IP) and freedom of speech related to the use of the Internet, world wide web (www), email, computers, cell phones, software and hardware, such as data storage devices.

Que : What are the scope of Cyber Law?

Ans : The rapid development of information technology posed certain challenges for the law that are not confined to a particular category of law but arises in diverse areas of law, such as criminal law, intellectual property law, contract and tort. Of late, owing to the rapid development of the internet and the World Wide Web, various unprecedented problems have emerged. These problems concern the issues of free speech, intellectual property, safety, equity, privacy, e-commerce and jurisdiction and are governed by the Cyber Law. The scope of different problems presented by the advancement of technology includes:

(a) Dealing with the computer hackers or those who introduce viruses;

(b) Categorization of 'contract for the acquisition of software' on similar footing with contract which dealing with goods;

(c) Dealing with the phenomenon of mass consumer purchases from other jurisdictions under e-commerce;

(d) existence of copyright in a computer program and question of patent protection;

(e) question of destruction of copyright due to the wide spread dissemination of text on networks;

(f) Regulation of 'cyber squatting' and trafficking in domain names under law;

(g) The question of regulation of the content of material on the internet and freedom of information and expression; and

(h) The protection of the privacy of the individual amid the increasing capacity for storing, gathering and collating information.

Que: What does **Domain Name** mean?

Ans: A domain name is an Internet resource name that is universally understood by Web servers and online organizations and provides all pertinent destination information. To access an organization's Web-based services, website users must know the precise domain name.

Que: When did Internet start in Bangladesh?

Ans: In **June 1996** the first VSAT base data circuit in the country was commissioned and the Bangladesh Telegraph and Telephone Board (BTTB) granted licenses to two Internet Service Providers (ISPs). ike many developed and developing countries, the Internet in Bangladesh has witnessed significant growth. Although facing many constraints in expanding Internet access and use, development of the Internet and Information Technology are high government priorities. In December, 2017 Internet users in Bangladesh increased to 80.483 million.On 19 February 2018, Bangladesh started the 5G network service.

The main obstacle to using the Internet in Bangladesh is its distribution. The Internet is still an urban privilege because telephone connections are more concentrated in urban areas, particularly in and around Dhaka. Mobile operators are providing substantial services in and outside urban areas using 3G/EDGE or WiMax.

However, recently Bangladesh has seen phenomenal growth in Internet usage. Due to government various initiatives known as a2i project (open Hotspot zone, government offices with internet facility, Reduce bandwidth price etc.) have impacted the growth of users.[11] As of December 2017, internet subscribers have reached 80.483 million users.[1]

The current Internet speed in boundary area level in Bangladesh is 2.1 Mbit/s. On 18 February 2018, Bangladesh started 4G internet network service.

Que :What about Internet services in Bangladesh ?

Ans: National Internet Exchanges (NIXs) and International Internet Gateways (IIGs):

All ISPs and equivalent service providers in Bangladesh exchange traffic via two systems, the National Internet Exchange (NIX) and International Internet Gateways (IIGs). The IIGs provide global Internet connectivity, while all domestic Internet traffic is routed via the NIX to minimize usage of international bandwidth. The NIX consists of two exchange points known as the Bangladesh Internet Exchange (BDIX) established in August 2004 and operated by the Sustainable Development Networking Programme and the Peering Society of Bangladesh and the Bangladesh Society of Internet Exchange (BSIX) established in May 2004.[21] In June 2012 the BTRC announced plans to issue an unrestricted number of additional NIX licenses. There are two IIGs in service operated by, Mango Teleservices Limited and the government owned Bangladesh Telecommunications Company Limited (BTCL).

There are concerns that, with a limited number of NIX operators, only two IIG operators, and with BSCCL holding a monopoly as the only operator of the SEA-ME-WE fiber optic cables, limited competition will keep the cost of raw bandwidth high.

In 2012, Bangladesh Telecommunication Regulatory Authority has awarded additional 35 International Internet Gateways (IIGs). In 2014, one additional NIX license has been awarded to a NovoCom limited, a private limited company

Internet Service Providers (ISPs

In 2005 there were more than 180 ISPs operating in the country. ISP's are regulated by the BTRC. In 2016, there were 119 licensed ISPs providing services nationwide and 65 ISPs providing services in the central zone.

Mobile operators

Because fixed line penetration rates are and are expected to remain low, most Bangladeshis' first experience with the Internet is likely to be via mobile services. An estimated 90% of Bangladesh's Internet users got their access using mobile services in 2010. Out of the Four mobile operators, Teletalk, Grameenphone, Robi, & Banglalink offer 3G, 4G services in 64 districts of Bangladesh, others offer 3G, 4G Internet service on some specific areas and EDGE or GPRS GSM Internet service on rest of the areas. Operators are working on expanding their 3G, 4G services on all areas. The sole CDMA operator, Citycell, offers EVDO. Airtel Bangladesh merged with Robi.

Broadband

Broadband Internet and e-commerce in Bangladesh is slowly progressing. In 2009 there were 50,000 fixed broadband Internet subscribers. However, In March 2016 there are currently 3.112 million ISP/PSTN users. Though broadband Internet access is available, the charges for high speed connections are higher than in other south Asian countries, though this is changing. In Bangladesh Broadband is legally defined as 128/128 kbit/s, which is not in line with the ITU's definition and many broadband Internet services may not be considered true broadband internationally.

WiMAX

Three companies, BanglaLion Communications Ltd., Brac Bdmail Network Ltd., and Augere Wireless Broadband Bangladesh Ltd., won licenses to operate WiMAX in Bangladesh in September 2008. The three firms purchased the licenses at auction for 2.15 billion BDT (US$31 million) from the BTRC under an agreement that pays 27.50% of revenue to the government. Brac Bdmail declined to start the service. BanglaLion and Augere (branded as Qubee) launched commercial WiMax services by the end of 2009.

From October 2011 Access Telecom (BD) Ltd. and Tackyon started giving fixed WiMax services to their clients.

Que: What is E-Readiness

Ans:

- The maturity of citizens, businesses, NGOs and governments for participating in the electronic world (e-commerce, e-government etc.).

- The readiness of a country, region or entity (e.g. corporation) to utilize information and communication technologies for sustaining welfare and growth. Among the important rankings of e-readiness are those of the Economist Intelligence Unit and Bertelsmann foundation.

- Is the ability to use ICTs to develop one's economy, to foster one's welfare, and better participate in the global socio-economic value chains..

- Network readiness index estimating the level of progress of a given entity (country) in developing significantly the quality and the extent of it ICT infrastructure, e-skills and relevant regulations.

- Degree of preparedness of a country for implementing e-governance.

- Defined in terms of availability of ICT infrastructure, the accessibility of ICT to the general citizen and business organization population, and the effect of the legal and regulatory framework on ICT use in, for example, an e-government strategy.

- A country's capacity and ability to provide services through the Internet.

Que : What is E government readiness?

Ans: Electronic government readiness is the aptitude of a government to use information and communication technologies to move its services and activities into the new environment.

Que :What is the meaning of e government?

Ans: E Government is the use of information and communication technologies (ICTs) to improve the activities of public sector organisations. Some definitions restrict e-government to Internet-enabled applications only, or only to interactions between government and outside groups.

E-government allows for government transparency. Government transparency is important because it allows the public to be informed about what the government is working on as well as the policies they are trying to implement. Simple tasks may be easier to perform through electronic government access.

Electronic-governance (e-governance in short) involves the use of Information and Communication Technology (ICT) and its numerous applications by the government for the provision of information and e-services (that is services by electronic means) to the citizens of the country. Broadly speaking, e-governance can be referred to as the uses and applications of ICT in public administration to conduct processes to effectively manage data and information to enhance public service delivery for empowerment of the citizens. Digital developments of recent years like online services, big data, social media, mobile apps, cloud computing etc. now influence people and the government tremendously.

Use of e-governance can make public administration fast and effective, provide better services, and respond to the demands of transparency and accountability. It can help the government to go green by effective management of natural resources aiding sustainability to environment. E-governance stimulates economic growth and promotes social inclusion of disabled and vulnerable sections of society. E-governance can provide benefits in the form of new employment, better health, better education, knowledge sharing, skills developments and capacity building for sustainable development. Quick and fast e-services eliminate middlemen and save both time and money. Without such online services, our cities and towns would have turned into more difficult places to live and the transport services would have been impossible to manage.

Que :E- commerce in Bangladesh ?

Ans: The term E-commerce or electronic commerce is related to the online transaction. E-commerce is a form of selling product over the internet. Currently e-commerce is one of the most important aspects of doing business. As a result of the expansion of internet services, e-commerce has grown rapidly. The new shape of business structure has been introduced by e-commerce. In Bangladesh ecommerce industry emerged in the 90s but could not be evolved as

expected. With the improvement of economic aspects, such as banking, the logistics, communications, payment method, etc., there has an outstanding opportunity of e-business. Along with the banking sector in Bangladesh, many other sectors have introduced a new era with the start of internet payment system. A Wider range of technologies is used in Ecommerce. Some of them are electronic data interchange (EDI), electronic mail (e-mail), electronic funds transfer (EFT). Agreement between trading partners (buyers and suppliers) in order to govern their electronic trading relationship is needed for some of them (e.g. electronic data interchange -EDI). Electronic Data Interchange (EDI) is comparatively better and standard method for exchanging business data. E-mail and fax are also forms of EDI.

Que :E-learning in Bangladesh

Ans: The use of technology in the field of education is becoming indispensable worldwide. The effectiveness of using e-learning tools in the classroom has been studied and proved time and time.again.

Studies suggest that effective learning occurs when the senses are stimulated. By stimulating the senses, especially the visual sense, learning can be enhanced. It is further suggested that if multiple senses are stimulated, greater learning takes place. Stimulation through the senses is achieved through a greater variety of colours, volume levels, strong statements, facts presented visually, use of a variety of techniques and media.

Information technology is capable of capturing a student's attention through visual representation of concepts taught, sounds, moving pictures as well as interactive activities

Educational institutions today understand this and are already making use of this functional medium in various aspects of their day-to-day activities. From classroom teaching, assigning homework, assessing students and delivering results, technology, and more importantly the internet, is being embedded into the very core of the educational system.

In Bangladesh, however, the use of internet among students is limited to social networking and entertainment. The reason being, lack of appropriate content from the field of education and absence of research based activities and assignments from schools. Inquisitive students often feel lost in the humongous sea of information available on the internet. If they could find something that was close to their school syllabus, they could find it useful and relevant to them.

Que :What is an electronic journal?

Ans: An electronic journal is a periodical publication which is published in electronic format, usually on the Internet. Some journals are 'born digital' in that they are solely published on the web and in a digital format, but most electronic journals originated as print journals, which subsequently evolved to have an electronic version, while still maintaining a print component. As academic research habits have changed in line with the growth of the internet, the e-journal has come to dominate the journals world

Electronic journals have several advantages over traditional printed journals:

- You can search the contents pages and/or the full text of journals to find articles on a certain subject.
- You can read journal articles on your desktop, you don't have to be in the Library.
- You can e-mail articles to yourself or download them for printing.
- The article that you want to read will always be available, even when the Library is closed.
- Hypertext links allow you to move to different sections within individual journals or articles and can link you to related resources on the Internet.
- Journals can include more images and audio-visual material.
- Journals can be interactive - you can e-mail the author or editor with your comments.

Many electronic journals which are available are electronic versions of journals which exist in print. For example, if you wanted to see the journal called "Man" this journal is available physically on Level F in the Library, but is also available to SOAS users in electronic format.

Some journals are only available in electronic format and although some of these journals are of a high "academic" quality, please be aware that not all of them have gone through the same process of academic peer review as traditional print journals.

Que :What is an Electronic voting?

Ans:Electronic voting (also known as **e-voting**) refers to **voting** using **electronic** means to either aid or take care of the chores of casting and counting votes. Depending on the particular implementation, **e-voting** may use standalone **electronic voting** machines (also called EVM) or computers connected to the Internet. Bangladesh 1st time   use EVM in City corporation election

Que : Which countries use electronic voting?

Ans: Electronic Voting Machines(EVMS) have been used around 20 countriesout of which 6 countries are still piloting
it. **Australia**,**Belgium**,**Brazil**,**Canada**,**Estonia**,**France**, **Germany**, **India**, **Italy**, **Namibia**,
the **Netherlands**,**Norway**, **Peru**, **Romania**, **Switzerland**, the **UK**, **Venezuela** and
the **Philippines**.

Que : What is Electronic evidence?

Ans: Digital evidence or electronic evidence is any probative information stored or transmitted in digital form that a party to a court case may use at trial. Before accepting digital evidence a court will determine if the evidence is relevant, whether it is authentic, if it is hearsay and whether a copy is acceptable or the original is required.

The use of digital evidence has increased in the past few decades as courts have allowed the use of e-mails, digital photographs, ATM transaction logs, word processing documents, instant message histories,   files   saved   from accounting programs, spreadsheets, internet browser histories, databases,   the   contents   of computer   memory,   computer backups,

computer printouts, Global Positioning System tracks, logs from a hotel's electronic door locks, and digital video or audio files.

Que :What is a digital signature ?

Ans: Digital Signature is a process that guarantees that the contents of a message have not been altered in transit.

When you, the server, digitally sign a document, you add a one-way hash (encryption) of the message content using your public and private key pair.
Your client can still read it, but the process creates a "signature" that only the server's public key can decrypt. The client, using the server's public key, can then validate the sender as well as the integrity of message contents.

Whether it's

- an email
- an online order
- or a watermarked photograph on eBay

if the transmission arrives but the digital signature does not match the public key in the digital certificate, then the client knows that the message has been altered.

Que: How does a Digital Signature work?

Ans: The digital signature can be considered as a numerical value that is represented as a sequence of characters. The creation of a digital signature is a complex mathematical process that can only be created by a computer.

Consider a scenario where Alice has to digitally sign a file or an email and send it to Bob.

1) Alice selects the file to be digitally signed or clicks on 'sign' in her email application
2) The hash value of the file content or the message is calculated by Alice's computer
3) This hash value is encrypted with Alice's Signing Key (which is a Private Key) to create the Digital Signature.
4) Now, the original file or email message along with its Digital Signature are sent to Bob.
5) After Bob receives the signed message, the associated application (such as email application) identifies that the message has been signed. Bob's computer then proceeds to:
     - Decrypt the Digital Signature using Alice's Public Key
     - Calculate the hash of the original message
     - Compare the (a) hash it has computed from the received message with the (b) decrypted hash received with Alice's message.
6) Any difference in the hash values would reveal tampering of the message
   -
   - Other uses of digital signature
   - Sometimes you need proof that the document came from you and no one has tampered with it since you sent it. Digital Signature with your SSL Certificate fills the bill.

- On the other hand, sometimes you need to prove that a document came from someone else and has not been altered along the way. In legal matters, for example, you may need to prove that a contract has not been altered since someone sent it as an email.

- Because the computer tenaciously pairs the Digital Signature to one saved version of the document, it is nearly impossible to repudiate a digitally signed document.

- Or, if you are a developer distributing software online, you may need to reassure your customers that your executables really are from you. Put a Code Signing Certificate in your toolkit.

Que : Types of Digital signature:

Ans: Different document processing platforms support and allow the creation of different types of digital signatures.

- Adobe supports - certified and approval digital signatures
- Microsoft Word supports - visible and non-visible digital signatures

QUE :WHAT IS Certified Signatures

Ans:

Adding a certifying signature to a PDF document indicates that you are the author of the document and want to secure the document against tampering.

Certified PDF documents display a unique blue ribbon across the top of the document. It contains the name of the document signer and the certificate issuer to indicate the authorship and authenticity of the document.

Approval Signatures

Approval signatures on a document can be used in your organization's business workflow. They help optimize your organization's approval procedure. The process involves capturing approvals made by you and other individuals and embedding them within the PDF document.

Adobe allows signatures to include details such as an image of your physical signature, date, location, and official seal.

Visible Digital Signatures

These allow a single user or multiple users to digitally sign a single document. The signatures would appear on the document in the same way as signatures are applied on a physical document.

Invisible Digital Signatures

Documents with invisible digital signatures carry a visual indication of a blue ribbon in the task bar. You can use invisible digital signatures when you do not have to or do not want to display your signature, but you need to provide indications of the authenticity of the document, its integrity, and its origin

Que :Digital evidence in Bangladesh

Ans: E-evidence or digital evidence, "which is any probative information stored or transmitted in digital form that a party to a court case may use at trial." It is not only the information that is stored, but also the way the evidence is gathered. Its latent, alterable, perpetual and vulnerable nature distinguishes it from documentary and oral evidences.

laws in Bangladesh still do not include much specific information about what encompasses electronic evidences or how to use these evidences in various suits. It creates an uncertainty among the lawyers and the judges about using it and interpreting it, which becomes an obstacle while giving fair decisions.

The Evidence Act, 1872, does not have any direct provision for electronic evidence; there are certain acts where electronic evidences are accepted as documents. Some of the laws that she mentioned are: Speedy Trial Tribunal Ain 2002 and Ain Sringkhola Bighnokari Aporadh Ain 2002, which in section 16 of the former and section 14 of the latter includes provisions for using camera for photographic and video recording as evidence. Also, Pornography NiyontronAin 2012, which accepts all forms of electronic evidence and the Information and Communication Technology Act 2006, which also accepts E-evidence as evidence in court. However, this applies only for offences related to these laws. In her research she further found that, Oporadh Shomporkito Bishoye Paroshparik Shohayota Ain 2012, helps the foreign countries in investigating e-evidence in our country and vice versa. Unfortunately, this does not give us the same opportunity within our own territory.

Instead of making new laws or amending the laws we already have, we are still going with our over one century old law from Victorian England and a precedent which is 31 years old, whereas, India changed their evidence Act, which they have been sharing with us since 1872, by amending and adding new provisions as per contemporary requirements, 16 long years back. They have changed the definition of 'document', added provisions regarding admissibility of e-evidence and a provision regarding experts'opinions. Presuming that,Bangladesh is no less advanced technologically; adding provisions regarding electronic evidence will not only better our legal system, but also give a better understanding of admissibility of e-evidence to the lawyers, law enforcement agencies and the overall judicial system of Bangladesh.

QUE :: Sources of Digital Evidence

Ans::

Internet

Evidence obtained from the internet includes information collected from website communications, emails, message boards, chat rooms, file sharing networks and intercepted communications. Message boards and chat rooms contain mountains of information both in real time as well as in archives. Though sources may easily be tracked and identified, there are many more problems posed by the internet today. The culprits may be outside the jurisdiction of the courts. Also, some websites are designed for user anonymity making identification of culprits more difficult.

Computers

Computers are a repository of information with evidence obtained using special extraction methods. Though information may overlap with Internet sources, computers provide many unique and notable pieces of evidence including time stamps, IP addresses, information about VPNs and MAC addresses.

Portable Devices

These include information sourced from cell phones, tablets and other handheld devices or gadgets. Because of the dependency society has on portable devices, these have become the lead source of digital evidence in many court cases.

What Makes Digital Evidence Permissible

For evidence to be deemed permissible in court, its security and extraction methods must ensure that its characteristics adhere to the rules of digital evidence.

Digital Evidence, like any other evidence, can be tampered with. It is one thing to identify the email address from which a correspondence seems to originate, but it is another thing to prove that the alleged culprit is the author. All evidence has to be collected and put through some form of process before it is presented in the court room. Digital evidence must be authentic. Whether it is permissible in court or not will depend on how the evidence was obtained, its handling methods and documentation of its chain of custody, from in situ to its presentation in the court room. At every stage it must be ascertained that the evidence has not be altered in any way.

Que :Legal effects of Electronics evidence

Ans:: There are two main rules which govern the admissibility of digital evidence in court.

1. Legality of acquisition

The first rule of admissibility is the legality of acquisition of the evidence. This involves establishing whether the evidence was obtained with the appropriate authorization. Authorization tools include search warrants, consent and exigency.

- Search warrant gives legal permission for investigators to search a vicinity, property or personal effects.

- Consent is given willingly by the person or party concerned, to the investigators, to access an area, property or personal effects to help with their investigations.
- Exigency entails that the situation presents a level of urgency requiring investigators to carry out a search.

For example, the Police may obtain a Warrant to search an office while investigating some sort of a fraud. Jim a member of staff knowing his innocence in the matter, willingly gives consent to the investigators to further search his home computers. During this search, child pornography was discovered on Jim's laptop. With the increase in the number of cases of pedophile crimes in the area the situation proved exigent enough for investigating Jim more thoroughly.

2. Digital evidence handling

The second rule that governs digital evidence admissibility is the handling methods of digital evidence. Digital evidence can be volatile and any mistake in handling the information or devices can give the defendants grounds to nullify it. A proper system of chain of custody and processes must be observed and maintained.

Forensic experts have specialized tools and methods that they use when copying contents of a hard drive, for example, in which an exact image of the drive is obtained preventing any form of changes to the data. An inexperienced IT person may use conventional methods of copying data that will change the data in some ways.

Que :What is UNCITRAL Model Law on Electronic Commerce?

Ans: The UNCITRAL Model Law on Electronic Commerce was adopted by the United Nations Commission on International Trade Law (UNCITRAL) in 1996 in furtherance of its mandate to promote the harmonization and unification of international trade law, so as to remove unnecessary obstacles to international trade caused by inadequacies and divergences in the law affecting trade. Over the past quarter of a century, UNCITRAL, whose membership consists of States from all regions and of all levels of economic development, has implemented its mandate by formulating international conventions (the United Nations Conventions on Contracts for the International Sale of Goods, on the Limitation Period in the International Sale of Goods, on the Carriage of Goods by Sea, 1978 ("Hamburg Rules"), on the Liability of Operators of Transport Terminals in International Trade, on International Bills of Exchange and International Promissory Notes, and on Independent Guarantees and Stand-by Letters of Credit), model laws (the UNCITRAL Model Laws on International Commercial Arbitration, on International Credit Transfers and on Procurement of Goods, Construction and Services), the UNCITRAL Arbitration Rules, the UNCITRAL Conciliation Rules, and legal guides (on construction contracts, countertrade transactions and electronic funds transfers