

(2½ hours)

Total Marks: 75

- N. B.: (1) **All** questions are **compulsory**.
(2) Makes **suitable assumptions** wherever necessary and **state the assumptions** made.
(3) Answers to the **same question** must be **written together**.
(4) Numbers to the **right** indicate **marks**.
(5) Draw **neat labeled diagrams** wherever **necessary**.
(6) Use of **Non-programmable** calculators is **allowed**.

1. **Attempt *any two* of the following:** **10**

- a. What is copyright? Explain with suitable example.

Ans: (Definition of copy right: (1 marks)

Copyright is a unique kind of intellectual property. The right which a person acquires in a work, which is the result of his intellectual labour, is called his copyright. The primary function of a copyright law is to protect the fruits of a man's work, labour, skill or test from being taken away by other people.

Any valid example (1 mark)

6 Characteristics to be explained with the help of any relevant example. (3 marks)

- a. Creation of a statute
- b. Some Form of intellectual property
- c. Monopoly right
- d. Negative right
- e. Object of copyright
- f. Multiple rights

- b. Explain the basic steps of applying patent.

17 steps as given below or the points can be combined and 10 points can be given (5 marks)

In order to obtain a patent right, you must apply to the Patent Office and go through examinations to determine whether the application fulfills all the necessary requirements.

(1) **Application**

No matter how good an invention may be, a patent right naturally cannot be obtained unless it is applied for. An application requires that one fills out the forms prescribed in the relevant ordinances and submit them.

(2) **Formality Examination**

An application document submitted will be checked to see whether it fulfills the necessary procedural and formal requirements. An invitation to correct will be made where necessary documents are missing or required sections have not been filled in.

(3) **Publication of Unexamined Application**

The Patent Office will publish the content of an application in the Official Gazette after 18 months have elapsed from the date of filing.

(4) **Request for Examination**

Patent applications are not necessarily examined. An examination will be carried out for which the applicant or a third party has filed a request for examination and paid the examination fees

(5) **Deemed Withdrawal (No Request for Examination)**

Any application for which a request for examination has not been filed within a period of *three years from filing date will automatically be regarded as withdrawal and cannot be patented thereafter. which the applicant or a third party has filed a request for examination and paid the examination fees.

(6) **Substantive Examination**

An examination will be carried out by an examiner, who will decide whether or not the claimed invention should be patented. The examiner firstly checks whether the application fulfills requirements prescribed by law, i.e., whether or not there are any reasons for refusal.

(7) **Notification of Reasons for Refusal**

If the examiner finds reasons for refusal, a notification to this result will be sent to the applicant.

(8) **Written Argument / Amendment**

An applicant who has received the notification of reasons for refusal shall be given an opportunity to submit either a written argument claiming that the invention differs from the prior art to which the notification of reasons for refusal refers, or an amendment of the claims in the case that this would nullify the reasons for refusal.

(9) **Decision to Grant a Patent**

As a result of the examination, the examiner will make a decision to grant a patent as the final assessment of the examination stage if no reasons for refusal have been found. The examiner will also make the same decision if the reasons for refusal have been eliminated by an argument or amendment.

(10) **Decision of Refusal**

On the other hand, if the examiner judges that the reasons for refusal have not been eliminated, a decision of refusal (the final assessment of the examination stage) will be made.

(11) **Appeal against Decision of Refusal**

When dissatisfaction is in the decision of refusal of the examiner, the applicant may appeal against the decision of refusal.

(12) **Appeal Examination (against Decision of Refusal)**

The appeal examination against the decision of refusal is performed by a collegial body of three or five appeal examiners.

Decision of the appeal examiners is called an appeal decision. When it is judged as a result of appeal examination that the reasons for refusal was solved, an appeal decision to grant a patent is performed, and when the appeal examiners judge that the reasons cannot be canceled and the patent cannot be registered, an appeal decision of refusal is performed.

(13) **Registration (Patent Fee Payment)**

Provided that the applicant pays the patent fee, once the decision to grant a patent has been made the patent right will come into effect as it is entered in the Patent Register. At the same time, the invention acquires a patent number. After a patent is registered, a certificate of patent will be sent to the applicant.

(14) **Publication of Patent Gazette**

The contents of the patent right entered in the Register will be published in the Patent Gazette.

(15) **Appeal for Invalidation**

Even after a patent is registered, any person may appeal for invalidation of the patent if it has a flaw.

(16) **Appeal Examination (Invalidation)**

An appeal examination of invalidation is carried out by a collegial body of three or five appeal examiners.

If the appeal examiners judge that there is no flaw in the decision to grant a patent, they will make a decision to maintain the patent. If however they judge that the decision to grant was flawed, they will make a decision to invalidate the patent right.

(17) **Intellectual Property High Court**

An applicant who is dissatisfied with an appeal decision of refusal of an appeal against decision of refusal, and an interested party who is dissatisfied with an appeal decision of invalidation or maintenance, may appeal to the Intellectual Property High Court.

c. List out the basic principles of trademark.

Ans:

Principles of trademark: (Any 5 principles with brief explanation----5 marks)

As per the definition of trademark under the Trademark Act of 1999, the following criteria needs to be followed in order for the trademark to be successful:

1. Trademark must be a mark which includes colours, brands, headings, labels, name, signature, words, letters, numerical, shape of goods or packaging.
2. The mark must be capable of being represented graphically.
3. It must be capable of distinguishing the goods or services of one person from another.
4. It may include shapes of goods, their packaging and combination of colours.
5. It must be used in relation to goods or services.
6. It must be used for the purpose indicating the trademark between the goods or services and between persons who are permitted to use the marks.

d. What is Trademark? Explain the role of trade mark and its usefulness in marketing.

MEANING OF 'TRADE MARK' (1 mark)

A consumer is duped if he buys a commodity presuming it to have originated from a certain identified source when actually it is not, and later he finds the commodity substandard. In the process, the reputation of trader suffers. The interests of both the consumer and the trader can be saved if some definite symbol which marks out the origin of goods from a definite trade source is attached with the goods emanating from such source. Such a symbol is called a trade mark.

Role of Trademark: (8 points) (4 marks)

1. A trademark is a distinctive sign that identifies certain goods or services which are produced or provided by a specific person or a firm.
2. Trademarks may include one or more combination of words, letters and numbers.
3. It can also consist of drawings, symbols, three-dimensional signs, music, fragrances or colours used as distinction features.
4. It provides protection to the owner by ensuring the exclusive right to use goods or services in return for payment.
5. Trademark help consumers to identify and purchase a product or service based on its nature or quality which needs their requirements and needs.
6. Registration of trademark is Prima Facie. The work Prima Facie is a latin word which means true and authentic which is self evident without any investigation.
7. Hence trademark rights are registered for a period of 10 years which may be renewed from time to time.
8. Thus trademark rights are held in perpetuity(continuous).

2. **Attempt any two of the following:**

a. Explain the procedure for the registration of domain names.

Definition: (1 mark)

A domain name is an identification string that defines a sphere of administrative autonomy, authority, or control on the Internet. Domain names are formed by the rules and procedures of the Domain Name System(DNS). Domain names are used in various networking contexts and application-specific naming and addressing purposes. In general, a domain name represents an Internet Protocol(IP) resource, such as a personal computer used to access the Internet, a server computer hosting web site or the web site itself or any other service communicated via the Internet. If desired, you can register more than one domain name at the same time.

Steps of Registration: (9 steps in flow 3 marks)

Registering is done one step at a time **as outlined below.**

- Use the Search function to verify that the domain name(s) you'd like is/are available
- Select the domain name(s) you want to register
- Setup your account control panel by entering a UserName and Password
- Select the number of years you want to register
- Enter information to register your ownership of the domain name(s) ;Click on "Continue"
- Review your contact information. If the same information is to be used for the Technical, Administrative and Billing contacts, nothing further needs to be done. However, if there is different person to be listed as the Technical, Administrative and/or Billing contacts, click on that title to enter their information. If these are not changed, the registrant (owner) will be listed as all contacts. Click on "Continue".
- Enter the DNS - Domain Name Services - data for your website host.
- Add Web E-mail or E-mail Forwarding (if desired) and confirm that all the registration information is correct.
- Review and confirm that item(s) being ordered is/are correct ;Make payment by credit card - shopping cart is That SSL secured ; Use your browser's Print button to print a receipt

Conclusion: (1 mark)

your domain name(s) will be registered in real-time. Within 72 hours the domain name will become accessible on the internet which is the normal internet propagation time -- the time for new DNS information to spread to the thousands of name servers all over the internet.

It is impossible for someone else to register your domain name after you registered it because our domain name will be verified for availability through shared registration systems. Basically, these is a universal database of unavailable domain names. These systems prevent a domain name that has been successfully registered from being registered by others.

b. Explain UK Data Protection Act.

About UK data protection Act: (1 mark)

In force 1 march 200 implementation EC directive and Replaced Data protection Act 1984. The act was implemented to protect the data of individuals personal and professional information.

“Personal Data”

- a. Data relating to a living individual
- b. Who can be identified from the data
- c. Eg: names, addresses, telephone numbers, job titles, dates of birth, shopping habits, movements, fingerprints, visual appearance, iris patterns, etc.
- d. **“Sensitive personal data”**.

UK Data Protection Act Principles (8 principles--- 4 marks)

1. Used fairly and lawfully: Personal data shall be processed fairly and lawfully.

2. Used for limited, specifically stated purposes: Personal data shall be obtained only for one or more specified and lawful purposes, and shall not be further processed in any manner incompatible with that purpose or those purposes.

3. Used in a way that is adequate, relevant and not excessive: Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.

4. Accurate: Personal data shall be accurate and, where necessary, kept up to date.

5. Kept for no longer than is absolutely necessary: Personal data processed for any purpose or purposes shall not be kept for longer than is necessary for that purpose or those purposes.

6. Handled according to people’s data protection rights: About the rights of individuals e.g. personal data shall be processed in accordance with the rights of data subjects (individuals).

7. Kept safe and secure: Appropriate technical and organizational measures shall be taken against unauthorized or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data.

8. Not transferred outside the UK without adequate protection: Personal data shall not be transferred to a country or territory outside the European Economic Area unless that country or territory ensures an adequate level of protection for the rights and freedoms of data subjects in relation to the processing of personal data.

- c. Discuss the digital copyright issues.

About digital Copyright: (1 mark)

The decentralized nature of Internet makes it possible for any user to disseminate a work endlessly in the cyberspace through an end number of outlets, thereby giving rise to global piracy.

Estimates of global losses from pirated books, music and entertainment software range into billions of dollars.

The Internet in a way presents a troublesome situation for copyright holders as the users become mass disseminators of others copyright material and creates disequilibrium between the authors and users.

The advent of digital technology, therefore presents legislators with a choice: either expand or modify existing 'old media notions' or redefine the catalogue of restricted acts.

Taking into account the peculiarities of the new environment , multiple aspects of issues are discussed as given below. (Any 4 issues with brief explanation---4 marks)

The Right of Reproduction : (Web casting)

The reproduction right has been at the heart of copyright law for more than three hundred years. Though recognized as a determining right, the reproduction right per se has not been unambiguously delimited by the international instruments for copyright protection . Due to the lack of agreement on the right's scope and content, it did not include any provision that expressly protected the

reproduction right The advent of the Internet makes the delimitation of the reproduction right more problematic in the digital age. Given that any transmission of protected works over the Internet involves the reproductions transitorily stored in the connected computers' RAM, the question of whether right owners should be granted with the control over all temporary reproductions looms large amid the dematerialized and decentralized nature of the Internet.

The Right of Communication to the Public :(Database protection)

Digital technology blurs the line between different categories of copyrightable works and the means of communication to the public as well. On the other hand, in the midst of fast development in digital technology, the computer networks, in particular the Internet, brings forth a point-to-point way of transmitting works on an on-demand and interactive basis. The interactivity and individuality afforded by this new method of exploiting works, makes it possible for any member of the public to have the full discretion in determining the place and the time one is intended to access and use works in digital form.

Legal Protection of Technological Measures:(Source of protection)

In response to the increasing ease of reproduction and disseminating works over the internet, copyright owners and their technology have designed entirely novel and more effective technological measures, to constrain physical access to and use of their copyrighted works.

The North America Free Trade Agreement, 1992 provides for criminal and civil remedies against decoding the encrypted program carrying satellite signals and related acts.

Legal Protection of Rights Management Information : (ISP liabilities)

It is important that whenever a work or an object of related rights is requested and transmitted over the network, the fact of the use is registered together with all the information necessary to ensure that the agreed payment can be transferred to the appropriate right owner(s). Various technologies in this respect are available or being developed which will enable the necessary feedback to the right owners. It is crucial, however, that such information is not removed or distorted, because the remuneration of the right owners would in that case not be paid at all, or it would be diverted.

Limitations and Exceptions:(Rights of performance)

From earliest times in the history of copyright, it has been recognized that in certain cases limitations or exceptions should be placed on the exercise or scope of established rights and may be termed as “internal restrictions”, i.e. they are actual or potential restrictions resulting from the provisions of the instrument itself . The reasons given for imposing such restrictions may be based on considerations of public interest, prevention of monopoly control, etc. The limitations on copyright are necessary to keep the balance between two conflicting public interests: the public interest in rewarding creators and the public interest in the widest dissemination of their works, which is also the interest of the users of such works .

Copyright Enforcement in Digital Environment: (Linking)

Global computer-based communications cut across territorial borders, creating a new empire of human activity and undermining the feasibility and legitimacy of laws based on geographical boundaries. Digital technology has made copyright enforcement difficult to achieve. In the online environment, works such as videos, recordings of musical performances, and texts can be posted anywhere in the world, retrieved from databases in foreign countries, or made available by online service providers to subscribers located throughout the globe. Our system of international copyright protection, however, historically has been based on the application of national copyright laws with strict territorial effects and on the application of choice-of-law rules to determine which country's copyright laws would apply.

d. Write a short note on “WIPO Treaty”

About WIPO: (1 mark)

The WIPO Copyright Treaty (WCT) is a special agreement under the Berne Convention that deals with the protection of works and the rights of their authors in the digital environment. Any Contracting Party (even if it is not bound by the Berne Convention) must comply with the substantive provisions of the 1971 (Paris) Act of the Berne Convention for the Protection of Literary and Artistic Works (1886).

Furthermore, the WCT mentions two subject matters to be protected by copyright: (2 subject matters: --1 mark)

(i) computer programs, whatever the mode or form of their expression; and
(ii) compilations of data or other material ("databases"), in any form, which, by reason of the selection or arrangement of their contents, constitute intellectual creations. (Where a database does not constitute such a creation, it is outside the scope of this Treaty.)

Rights: (1 marks)

As to the **rights granted to authors**, apart from the rights recognized by the Berne Convention, the Treaty also grants:

(i) the right of distribution;
(ii) the right of rental; and

(iii) a broader right of communication to the public.

- **The right of distribution** is the right to authorize the making available to the public of the original and copies of a work through sale or other transfer of ownership.
- **The right of rental** is the right to authorize commercial rental to the public of the original and copies of three kinds of works: (i) computer programs (except where the computer program itself is not the essential object of the rental); (ii) cinematographic works (but only in cases where commercial rental has led to widespread copying of such works, materially impairing the exclusive right of reproduction); and (iii) works embodied in phonograms as determined in the national law of Contracting Parties (except for countries which, since April 15, 1994, have had a system in force for equitable remuneration of such rental).
- **The right of communication to the public** is the right to authorize any communication to the public, by wire or wireless means, including "the making available to the public of works in a way that the members of the public may access the work from a place and at a time individually chosen by them". The quoted expression covers, in particular, on-demand, interactive communication through the Internet.

As to limitations and exceptions, (1 mark)

Article 10 of the WCT incorporates the so-called "three-step" test to determine limitations and exceptions, as provided for in Article 9(2) of the Berne Convention, extending its application to all rights. The Agreed Statement accompanying the WCT provides that such limitations and exceptions, as established in national law in compliance with the Berne Convention, may be extended to the digital environment. Contracting States may devise new exceptions and limitations appropriate to the digital environment. The extension

of existing or the creation of new limitations and exceptions is allowed if the conditions of the "three-step" test are met.

As to duration(1 mark)

the term of protection must be at least 50 years for any kind of work.

The enjoyment and exercise of the rights provided for in the Treaty cannot be subject to any formality.

3. Attempt any two of the following:

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e. Explain the types of assignment.

Meaning of Assignment (1 Mark)

List and explain in detail- Types of Assignments (3 Marks)

1. Legal Assignment
2. Statutory Assignment
3. Mortgage Assignment

Legal assignment (1 mark) – An assignment of an existing patent through an agreement which has been duly registered is a legal assignment. A legal assignee has the right to have his name entered in the Register of patents maintained in the Controller's Office as proprietor of the patent and can thereafter exercise all the rights conferred on him by the proprietor of patent.

Equitable assignment (1 mark) – Any document such as letter not being an agreement, which is duly registered with Controller in which patentee agrees to give another person certain defined right in the patent with immediate effect, is an equitable assignment. An assignee in such a case cannot have his name entered in the Register as the proprietor of patent. He can only have a notice of his interest entered in the register. He can convert the equitable assignment to legal assignment by getting a written agreement to this effect and having it duly registered.

Mortgage (1 mark) – A mortgage is also a form of assignment. A mortgage is a document transferring the patent rights either wholly or partly to the mortgagee with a view to secure the payment of a specified sum of money. The mortgagor (patentee) is entitled to have the patent re-transferred to him on refund of the money to the mortgagee. The mortgagee (a person in whose favour a mortgage is made) is not entitled to have his name entered in the Register as the proprietor, but he can get his name entered in the Register as a mortgagee.

Conditions for a Valid Assignment (1 Mark)

f. What are the rights awarded to a patentee?

Ans:

Rights conferred on a patentee: (1 marks)

The purpose of a patent act is to seek an exclusive right to make the invention, to manufacture the invented products and to market this product. If an inventor does not have patent rights he can still manufacture the product & market it. But he cannot protect his product against the patent act of 1970.

Rights conferred on patentee under this act are: (any 4 rights--- 4 marks)

1. **Rights to exploit the patent:**

As the patent protection act is for a limited period of 20 years, the patentee needs to renew this protection. If the patent owner has failed to make this payment of the renewal fees, the patent rights gets expired. Thus, the patentee shall not be entitled to any further protection.

2. **Rights to license the patent to another:**

Section 70 of this act, gives the right to the patentee of the invention to give the right to license, that are his rights to another party to make and sell, similar products within a particular territory.

3. **Rights to assign the patent to another:**

Section 70 of this act gives the patentee all the rights to fully or partially assign his patent rights to another. This assignment should always be in writing, which acts as a legal evidence for future rights.

4. **Rights to surrender the patent:**

A patentee under this act does not have an obligation that he should remain the patent owner for the entire term of the patent act, thus the patentee may surrender, the entire patent rights any time.

5. **Rights to sue for the infringement of patents:**

The exclusive rights of a patentee means that he can take legal action for protection of his patent rights. He can go to a district court to file a suit in case of any infringement.

g. What is trade mark? What are its essential elements?

Meaning of Trademark: (1 mark)

Definition of Trademark: (1 mark)

Under section 2(1)(zb) of Trademark act, 1999 defines trademark as “a mark capable of being represented graphically and which is capable of distinguishing between the goods or services of one person from those of others which may include shape of goods, packaging and combination of colors.

Essential Elements: (6 elements--- 3 marks)

As per the definition of Trademark, under this act the following criteria needs to be followed in order for the trademark to be successful.

A] Trademark must be a mark which includes colors, brands, headings, labels, names, signature, words, letters, numerical, shapes of goods or packaging.

B] The mark must be capable of being represented graphically.

C] It must be capable of distinguishing the goods or services from 1 person to another.

D] It may include shapes of goods, their packaging or combination of colors.

E] It may be used in relation to goods or services.

F] It must be used for the purpose of indicating the trade between goods or services and between persons who are permitted to use the mark.

h. What are the rights granted for registration of a design.

Rights Granted In Case Of Industrial Design (5 points with explanation---5 marks)

1. A person has the right for exclusive use of the design which is subject to the provision of Design Act, 2000. Hence the Design registered under this act can be used from the date of registration.

2. If the design provision gets expired then the applicant can extend the period of design by paying the prescribed fees.

3. Every person has a right to protect the design from piracy. Any person responsible for infringing the registered design then he is liable to pay a fine of a sum not exceeding 25,000.

4. Under section 20 of the design Act, 2000. There are exceptions in case of using the design related to the government. Hence the government can

use the registered design which prohibits other person to use this design under certain circumstances

5. Section 11 of the Design Act, 2000 has provided extension period if the registered design gets expired. Hence the maximum period of extending the registered design is for 15 years

4. **Attempt any two of the following:**

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- a. What are the different types of IP Licensing formats? Explain.

(3 types---5 marks)

There are basically 3 types of IP licensing formats:

1. Sole License: No person other than the licensee and the owner has the rights to perform the activities stipulated in the agreement. The owner may reserve certain rights for himself. For example: the patent holder may keep certain product features for him to manufacture while to licensee he may allow to manufacture similar product with limited features to mark the product differentiation in the market.

2. Exclusive license: No one other than the licensee (even the licensor) can perform the activities stipulated in the agreement. Such a license could be worthwhile when an IP owner does not want to exploit the IP themselves, as it may be possible to seek a higher royalty payment than for a non-exclusive license. But IP owner should be certain that they do not want to use the IP themselves before agreeing to exclusive license.

3. Non-exclusive license: The owner of the IP is interested in making multiple copies of his creation and sell it to end users who is licensed to use it. This happens in case of software, wherein the user who is licensee to use the product, is restricted to make multiple copies of the same for selling or distributing.

- b. Discuss Technology Licensing.

Technology Licensing (1 mark)

By a technology licensing agreement the licensor authorizes the licensee to use the technology under certain agreed terms and conditions. It is, therefore, a contract freely entered into between two parties and contains terms and conditions so agreed.

Joint Ventures: (1 mark)

A joint venture may consist of any variety of business relationships that involve two or more enterprises pooling their resources with the objective of implementing a common business purpose. Often, in such agreements, one party will contribute technology or know-how of which he is the proprietor and the

other party may contribute financial and expertise of his own to the project. The joint venture will, therefore, often include a license agreement concluded by the parties concerned to regulate the use of the proprietary information and compensation for its use.

Franchise or Trademark License Agreements (2 marks)

If your SME is interested in:

marketing a product or service and the brand (trademark) of that product is owned by others, or entering or expanding the existing market for your product or service for which your SME owns the rights conferred by a trademark, You may consider a trademark license agreement or a franchise agreement.

The principle function of a trademark or service mark is to distinguish the goods and services of one enterprise from that of another, thereby often identifying the source and making an implied reference to quality and reputation.

Through a franchise agreement the owner of certain technical or other expertise who has usually gained a reputation in connection with the use of a trade or service mark (the franchiser) may team up with another enterprise (franchisee) who will bring in expertise of his own or financial resources to provide goods or services directly to the consumer. The franchiser will ensure, through the supply of technical and management skills, that the franchisee maintains the quality and other standards in relation to the use of the trade or service mark which often require certain standardized features like, for example, a uniform trade dress.

Copyright License Agreements (1 mark)

Copyright licensing is done for Manufacturing, distributing or marketing the results of the literary and artistic efforts of creators, or Entering a market or expanding or extending your existing market for the literary and artistic efforts of your enterprise

c. What are the advantages and disadvantages of IP Licensing?

Advantages: (3 marks)

Licensing is part of the overall business strategy, but it is associated with advantages and disadvantages both for the licensor & licensee. To the licensor, in addition to one time payment, he may get regular payment on the ongoing sales by way of license fees and royalties. In case the owner does not have the money or resources to use or commercialize his inventions or IPR, he may transfer the licensing rights to someone, who is willing to commercialize & market the product. The greatest advantage of licensing is that it increases the profit by using an available technology to make a new improved product to sell in the market at an appropriate time.

For the licensee the greatest advantage is that he need not have to spend money & time in the rigorous process of R & D. This is a cost-effective process to get in to the market with new product at a greater speed. The new technology/product will help the licensee enhance his reputation & goodwill in the market. The valuable technology will make it easier for the licensee to get finance & finally cash the market opportunities by timely commercializing the product.

Disadvantages: (2 marks)

Though IP licensing is beneficial to both licensor & licensee, sometimes through licensing, the owner may lose his control on the technology & there may be great risk of piracy & exploitation by unauthorized parties. It may so happen that the licensee develops technology around the product, he has the license for & make the original licensor to lose his superiority. The revenue from the licensee depends on his performance. Hence the licensor loses the revenue to that extent. For the licensee, the technology may become redundant in short span of time & he may have to go in for a new one at a higher price. In case the technology is not tested, the licensee will be at great risk of losing the money if relevant risk aversion clauses are not stipulated in the agreement. Hence, in IPR licenses agreement, the terms & conditions need careful drafting.

d. **List out the criminal remedies in enforcing IPR.**

Ans: (5 remedies---5 marks)

Criminal remedies:-

A] The judicial authorities have the authority to order the infringer to pay the right holder in form of compensation as damages have been occurred.

B] In case of infringing cases if the right holder has suffered huge losses then the infringer not only pays the fine but also is put in jail for few years as per the judicial authorities.

C] In order to create and provide effective decisions the judicial authorities shall order for the goods that are found to be infringed.

D] In case of 3rd parties involved the judicial authorities take decision based on the interest of these parties.

E] In case of criminal procedures imprisonment and monetary fines need to be paid as a penalty related to infringement cases of ipr particularly on commercial basis.

5. Attempt any two of the following:

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a. What is a need of cyber law and cyber security?

Need for Cyber Law (10 points---5 marks)

There are various reasons why it is extremely difficult for conventional law to cope with cyberspace. Some of these are discussed below.

1. Cyberspace is an intangible dimension that is impossible to govern and regulate using conventional law.

2. Cyberspace has complete disrespect for jurisdictional boundaries. A person in India could break into a bank's electronic vault hosted on a computer in USA and transfer millions of Rupees to another bank in Switzerland, all within minutes. All he would need is a laptop computer and a cell phone.

3. Cyberspace handles gigantic traffic volumes every second. Billions of emails are crisscrossing the globe even as we read this, millions of websites are being accessed every minute and billions of dollars are electronically transferred around the world by banks every day.

4. Cyberspace is absolutely open to participation by all. A tenyear-old in Bhutan can have a live chat session with an eightyyear-old in Bali without any regard for the distance or the anonymity between them.

5. Cyberspace offers enormous potential for anonymity to its members. Readily available encryption software and steganographic tools that seamlessly hide information within image and sound files ensure the confidentiality of information exchanged between cyber-citizens.

6. Cyberspace offers never-seen-before economic efficiency. Billions of dollars worth of software can be traded over the Internet without the need for any government licenses, shipping and handling charges and without paying any customs duty.

7. Electronic information has become the main object of cyber crime. It is characterized by extreme mobility, which exceeds by far the mobility of persons, goods or other services. International computer networks can transfer huge amounts of data around the globe in a matter of seconds.

8. A software source code worth crores of rupees or a movie can be pirated across the globe within hours of their release.

9. Theft of corporeal information (e.g. books, papers, CD ROMs, floppy disks) is easily covered by traditional penal provisions.

10. However, the problem begins when electronic records are copied quickly, inconspicuously and often via telecommunication facilities. Here the "original" information, so to say, remains in the "possession" of the "owner" and yet information gets stolen.

b. What are the roles performed by the certifying authorities? Explain.

Ans:

About CA: (1 mark)

A Certifying Authority is a trusted body whose central responsibility is to issue, revoke, renew and provide directories of Digital Certificates. Certifying Authority means a person who has been granted a license to issue an Electronic Signature Certificate under section 24. Provisions with regard to Certifying Authorities are covered under Chapter VI i.e. Sec.17 to Sec.34 of the IT Act, 2000. It contains detailed provisions relating to the appointment and powers of the Controller and Certifying Authorities. Controller of Certifying Authorities (CCA) The IT Act provides for the Controller of Certifying Authorities (CCA) to license and regulate the working of Certifying Authorities. The Certifying Authorities (CAs) issue digital signature certificates for electronic authentication of users. The CCA certifies the public keys of CAs using its own private key, which enables users in the cyberspace to verify that a given certificate is issued by a licensed CA. For this purpose it operates, the Root Certifying Authority of India (RCAI). The CCA also maintains the National Repository of Digital Certificates (NRDC), which contains all the certificates issued by all the CAs in the country.

Certifying Authority (4 roles---4 marks)

(1) Any person may make an application to the Certifying Authority for the issue of a Digital Signature Certificate in such form as may be prescribed by the Central Government.

(2) Every such application shall be accompanied by such fee not exceeding twenty-five thousand rupees as may be prescribed by the Central Government, to be paid to the Certifying Authority Provided that while prescribing fees under sub-section (2) different fees may be prescribed for Different classes of applications.

(3) Every such application shall be accompanied by a certification practice statement or where there is no such statement, a statement containing such particulars, as may be specified by regulations.

(4) On receipt of an application under sub-section (1), the Certifying Authority may, after consideration of the Certification practice statement or the other statement under sub-section (3) and after making such enquiries as it may deem fit, grant the Digital Signature Certificate or for reasons to be recorded in writing, reject the application :

Provided that no Digital Certificate shall be granted unless the Certifying Authority is satisfied that-

(a) the application holds the private key corresponding to the public key to be listed in

The Digital Signature Certificate

(b) the applicant holds a private key, which is capable of creating a digital signature;

(c) the public key to be listed in the certificate can be used to verify a digital signature affixed by the private key held by the applicant :

Provided further that no application shall be rejected unless the applicant has been given a reasonable opportunity of showing cause against the proposed rejection

c. What is e-governance? Explain.

What is e-governance? (1 mark)

Electronic governance or **e-governance** is the application of information and communication technology (ICT) for delivering government services, exchange of information communication transactions, integration of various stand-alone systems and services between government-to-customer (G2C), government-to-business (G2B), government-to-government (G2G) as well as back office processes and interactions within the entire government framework. Through e-

governance, government services will be made available to citizens in a convenient, efficient and transparent manner. The three main target groups that can be distinguished in governance concepts are government, citizens and businesses/interest groups. In e-governance there are no distinct boundaries.

Generally four basic models are available – (4 models---4 marks with explanation)

1. government-to-citizen (customer),
2. government-to-employees,
3. government-to-government and
4. government-to-business.

d. **Explain cyber jurisprudence.**

Ans: (5 valid points with brief explanation---5 marks)

- The primary source of cyber law in India is the Information Technology Act, 2000 (IT Act) which came into force on 17 October 2000. The primary purpose of the Act is to provide legal recognition to electronic commerce and to facilitate filing of electronic records with the Government.
- The IT Act also penalizes various cyber crimes and provides strict punishments (imprisonment terms upto 10 years and compensation up to Rs 1 crore). An Executive Order dated 12 September 2002 contained instructions relating provisions of the Act with regard to protected systems and application for the issue of a Digital Signature Certificate. Minor errors in the Act were rectified by the Information Technology (Removal of Difficulties) Order, 2002 which was passed on 19 September 2002.
- The IT Act was amended by the Negotiable Instruments (Amendments and Miscellaneous Provisions) Act, 2002. This introduced the concept of electronic cheques and truncated cheques. Information Technology (Use of Electronic Records and Digital Signatures) Rules, 2004 has provided the necessary legal framework for filing of documents with the Government as well as issue of licenses by the Government.
- It also provides for payment and receipt of fees in relation to the Government bodies. On the same day, the Information Technology (Certifying Authorities) Rules, 2000 also came into force. These rules prescribe the eligibility, appointment and working of Certifying Authorities (CA). These rules also lay down the technical standards, procedures and security methods to be used by a CA. These rules were amended in 2003, 2004 and 2006
- Information Technology (Certifying Authority) Regulations, 2001 came into force on 9 July 2001. They provide further technical standards and procedures to be used by a CA. Two important guidelines relating to CAs were issued.
- The Cyber Regulations Appellate Tribunal (Procedure) Rules, 2000 also came into force on 17th October 2000. These rules prescribe the appointment and working of the Cyber Regulations Appellate Tribunal (CRAT) whose primary role is to hear appeals against orders of the Adjudicating Officers
- On 17th March 2003, the Information Technology (Qualification and Experience of Adjudicating Officers and Manner of Holding Enquiry) Rules, 2003 were passed. These rules prescribe the qualifications required for Adjudicating Officers. Their chief responsibility under the IT Act is to adjudicate on cases such as unauthorized access, unauthorized copying of data, spread of viruses, denial of service attacks, disruption of computers, computer manipulation etc. These rules also prescribe the manner and mode of inquiry and adjudication by these officers.
- The Information Technology (Security Procedure) Rules, 2004 came into

force on 29th October 2004. They prescribe provisions relating to secure digital signatures and secure electronic records. Also relevant are the Information Technology (Other Standards) Rules, 2003. An important order relating to blocking of websites was passed on 27th February, 2003. Computer Emergency Response Team (CERT-IND) can instruct Department of Telecommunications (DOT) to block a website. The Indian Penal Code (as amended by the IT Act) penalizes several cyber crimes. These include forgery of electronic records, cyber frauds, destroying electronic evidence etc. Digital Evidence is to be collected and proven in court as per the provisions of the Indian Evidence Act (as amended by the IT Act).

- In case of bank records, the provisions of the Bankers' Book Evidence Act (as amended by the IT Act) are relevant. Investigation and adjudication of cyber crimes is done in accordance with the provisions of the Code of Criminal Procedure and the IT Act. The Reserve Bank of India Act was also amended by the IT Act.

6. Attempt any two of the following:

10

- a. What does Chapter 3 of IT Act, 2000 e-governance stress upon?

Section 4 of the Indian IT Act, 2000 (1 mark)

confers legal recognition to electronic records .Paper based documents are equated with electronic records so long as they are made available in electronic form and are accessible so as to be usable for a subsequent reference.

Section 5 (1 mark)

confers legal recognition to digital signatures and equates it with handwritten signatures. The authentication of such digital signatures will be ensured by means of digital signatures affixed in such manner as the Central Government prescribes.

Section 6 (1 mark)

aims to eliminate red tapism and promote use of electronic records and digital signatures in Government and its agencies.It provides for filing documents online with governmental authorities, grant of licenses /approvals and receipt/payment of money. Section 7 allows retention of electronic records akin to paper based records to fulfill legal requirement of retention of records.

Incase of the electronic as well as the traditionally printed gazette, it is stipulated that publication of rules, regulations and notifications in the Electronic Gazette shall **also be legally recognized (2 marks) (any 2 points)**

- a. Therefore, where the publication of any rule, regulation, byelaw and

notification is required to be published in the Official Gazette, such requirement is satisfied if the same is published electronically. Further, where such Official Gazette is published in both electronic as well as printed form, the date of publication shall be the date of publication of the Official Gazette that was first published, whatever may be the form. At the same time, no person can insist on electronic filing of returns or records, as the Government needs sufficient time to set up set infrastructure facilities that will enable them to conduct electronic transactions in the future

- b. The Central Government has been conferred with the power to make rules in respect of Digital Signature, inter alia, the type, manner, format in which digital signature is to be affixed and procedure of the way in which the digital signature is to be processed
- c. Recently, implementing the e-governance provisions, the Indian railways has started the internet reservation facility on its website wherein reservations can be made online through use of [Credit](#) Cards. Also, the Ministry of company affairs has launched its online filing automated system MCA21 for establishing of new companies in India.

b. What are the duties of subscriber of digital signature certificate?

1. Generating key pair (1 mark)

Where any Digital Signature Certificate, the public key of which corresponds to the private key of that subscriber which is to be listed in the Digital Signature Certificate has been accepted by a subscriber, then, the subscriber shall generate the key pair by applying the security procedure.

2. Acceptance of Digital Signature Certificate (2 marks)

(1) A subscriber shall be deemed to have accepted a Digital Signature Certificate if he publishes or authorises the publication of a Digital Signature Certificate-

- (a) to one or more persons;
 - (b) in a repository, or
- otherwise demonstrates his approval of the Digital Signature Certificate in any manner,

(2) By accepting a Digital Signature the subscriber certifies to all who reasonable rely on the information contained in the Digital Signature Certificate that-

- (a) the subscriber holds the private key corresponding to the public key listed in the Digital Signature Certificate and is entitled to hold the same;
- (b) all representations made by the subscriber to the Certifying Authority and all material relevant to the information contained in the Digital Signature Certificate are true.;
- (c) all information in the Digital Signature Certificate that is within the knowledge of the subscriber is true.

3. Control of private key (2 marks)

(1) Every subscriber shall exercise reasonable care to retain control of the private key corresponding to the public key listed in his Digital

Signature Certificate and take all steps to prevent its disclosure to a person not authorised to affix the digital signature of the subscriber.
(2) If the private key corresponding to the public key listed in the Digital Signature Certificate has been compromised, then, the subscriber shall communicate the same without and delay to the Certifying Authority in such manner as may be specified by the regulations.

Explanation-

For the removal of doubts, it is hereby declared that the subscriber shall be liable to till he has informed the Certifying Authority that the private key has been compromised.

c. **What are the functions of controller of CA?**

A Certifying Authority is a trusted body whose central responsibility is to issue, revoke, renew and provide directories of Digital Certificates. Certifying Authority means a person who has been granted a license to issue an Electronic Signature Certificate under section 24.

The functions of the Controller are –(any 10 functions---5 marks)

- (a) to exercise supervision over the activities of the Certifying Authorities;
- (b) certify public keys of the Certifying Authorities;
- (c) lay down the standards to be maintained by the Certifying Authorities;
- (d) specify the qualifications and experience which employees of the Certifying Authorities should possess;
- (e) specify the conditions subject to which the Certifying Authorities shall conduct their business;
- (f) specify the content of written, printed or visual material and advertisements that may be distributed or used in respect of a Electronic Signature Certificate and the Public Key;
- (g) specify the form and content of a Electronic Signature Certificate and the key;
- (h) specify the form and manner in which accounts shall be maintained by the Certifying Authorities;
- (i) specify the terms and conditions subject to which auditors may be appointed and the remuneration to be paid to them;
- (j) facilitate the establishment of any electronic system by a Certifying Authority either solely or jointly with other Certifying Authorities and regulation of such systems;
- (k) specify the manner in which the Certifying Authorities shall conduct their dealings with the subscribers;
- (l) resolve any conflict of interests between the Certifying Authorities and the subscribers;
- (m) lay down the duties of the Certifying Authorities;
- (n) maintain a data-base containing the disclosure record of every Certifying Authority containing such particulars as may be specified by regulations, which shall be accessible to the public. Controller has the power to grant recognition to foreign certifying authorities with the previous approval of the Central Government, which will be subject to such conditions and restrictions imposed by regulations.

d. What does chapter 4 of IT Act, 2000, “Attribution, Acknowledgement & Dispatch of Electronic records” cover?

Ans: (5 points--- 5 marks)

Attribution of electronic records is dealt with under Sec.11 of the IT Act, 2000.

- a) An electronic record will be attributed to the originator - if it was sent by the originator himself; by a person who had the authority to act on behalf of the

- originator in respect of that electronic record; or by an information system programmed by or on behalf of the originator to operate automatically.
- b) According to Section 12, the addressee may acknowledge the receipt of the electronic record either in a particular manner or form as desired by the originator and in the absence of such requirement, by communication of the acknowledgement to the addressee or by any conduct that would sufficiently constitute acknowledgement.
 - c) Normally if the originator has stated that the electronic record will be binding only on receipt of the acknowledgement, then unless such acknowledgement is received, the record is not binding. However, if the acknowledgement is not received within the stipulated time period or in the absence of the time period, within a reasonable time, the originator may notify the addressee to send the acknowledgement, failing which the electronic record will be treated as never been sent.
 - d) Time and place of dispatch and receipt of electronic record is covered under Sec.13 of the IT Act, 2000. The dispatch of an electronic record occurs when it enters a computer resource outside the control of the originator Unless otherwise agreed between the originator and the addressee, the time of receipt of an electronic record will be determined
 - e) If the originator or the addressee has more than one place of business, the principal place of business will be the place of business. If the originator or the addressee does not have a place of business, his usual place of residence will be deemed to be the place of business. "Usual Place of Residence", in relation to a body corporate, means the place where it is registered.

7. **Attempt *any three* of the following:** 15
- a. What are the basic principles of patent law?
 Ans:
 Principles of patent law:

An invention can be patented if it qualifies the following criteria: (4 Principles ---- 4 marks)

1. It must be Novel(new):
 Every invention must be novel and should be different from the existing inventions that have already been known in particular fields. If an invention has a prior publication and prior use of an identical invention then it is not novel for the purpose of patent. Every invention must be new which involves technology and cannot be anticipated by the public in any document or used in a country or used anywhere in the world before the date of filing av patent application with complete specification.

2. Invention should involve inventive steps(non-obvious):
 Every invention should be non-obvious especially in the field of art. These inventions should be continuous so that new innovations or new features can be added to the invention. Hence due to the invention which has inventive steps helps to improve a skilled person in a particular field.

3. It must be capable of industrial application(useful):
 Every invention made should not only be new and non-obvious but should also be very useful. If an invention is not useful then it cannot be patented. Thus invention should involve technical knowledge and economic significance.

4. Invention should not fall within the provisions of section 3 and 4 of the Patent Act 1970:
 Every act has certain provisions under different sections. If an invention falls

under section 3 and 4 of Patents Act 1970 then this invention cannot be patented. Thus no invention should fall under any category of subject matter specially under the provisions of section 3 and 4 which are excluded in the Patents Act 1970.

Exceptions to the principle or criteria of Patents Act 1970:(any 2 exceptions--1 mark)

Certain inventions even though are new or non-obvious or useful still can be patented under the Patents Act 1970. The following are exceptions in the field of invention under the Patent Act 1970:

1. Inventions made in the field of medicines for public health.
2. Inventions made in the field of agriculture or horticulture.
3. Inventions made in the process of treatment for plants and animals.
4. Inventions made in the process for medical or surgical treatment of animals.
5. Inventions related to Atomic Energy.

b. Explain trade related aspects of IP Rights (TRIPS) in India.

Explanation:

About TRIPS (1 mark)

In 2005, in order to comply with the requirements of TRIPS, the Indian government introduced product patents on pharmaceuticals. For the previous three decades, such patents had been forbidden, allowing India to develop one of the most robust generic pharmaceutical industries in the world

Need of TRIPS in India (2 marks)

Pharmaceutical patents were first introduced to India by the British. But in Patent Act 1970 changed the course prohibiting product patents on medicines. At that time drug prices in India were very high The 1970 Act served as a big boost of growth in the domestic pharmaceutical industry. Although the law permitted process patents related to medicines, they were very limited in scope. The law thus created significant space for the entry of local pharmaceutical firms and they started producing active pharmaceutical ingredients (APIs) in the mid-1970s.

Indian companies became skilled in reverse engineering and developing new processes for drug production. And gradually drug prices were amongst the lowest in the world. In 1995, India joined the WTO and the TRIPS Agreement. TRIPS altered the terrain of international IP law. TRIPS had more teeth than WIPO administered treaties as treaties administered through the World Intellectual Property Organization (WIPO) had no effective enforcement mechanism, but the WTO incorporated a new dispute settlement system, allowing for adjudication of TRIPS disputes and for trade sanctions against countries found to be in violation of the Agreement.

The Ministerial Conference agreed that the TRIPS agreement should not prevent

members from taking measures to protect public health. WTO members were under obligation to implement TRIPS provision by 2000, 2005, or 2016, depending on their level of development.

India was given an extended period of time to make its patent regime compliant to TRIPS. Consequently India passed the Patents Amendment Act, 2005 which came into force on 1st January, 2005. Earlier India had allowed for the manufacture of generic versions of many drugs. Through this amendment it has now implemented a product patent regime and product patents in the pharmaceutical sector.

Amendments of TRIPS in 2005 (2 marks)

2005 AMENDMENT-TRIPS

A number of changes were introduced by the 2005 amendment, few of the important definitions brought by this amendment are:

"inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.

"pharmaceutical substance" means any new entity involving one or more inventive steps

Section 3(d) has been amended to read:

“the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least employs one new reactant”.

c. What are the defenses available in case of infringement of patents?

Ans: (10 defenses---5 marks)

Defense Which is set up by the Defendant

1. The person who has not been registered under the Indian patent Act 1970 is not entitled to sue for infringement
2. There should not be threat or infringement unnecessarily
3. The person who is registered as a licensor can use the invention easily
4. Estoppel- it means that individual is stopped or barred from denying his previous statements
5. Res Judicata –it means that the matter has already been judicially acted between two parties and the case cannot be reopened for the same cause of action
6. The invention claimed has to be valid subject matter and should be protected under the Patent Act
7. The subject of any claim should have complete specification but is not an invention under the Indian Patent Act 1970
8. At the time of infringement a contract has to exist relating to the patents containing all the terms and condition

9. If the defendant is unaware of the existence of the patent when the infringement case is filed then he cannot taken to the court. The patentee cannot claims for damages as the defendant was unaware of the existence of the patent.
10. There are certain circumstances when the invention is used by the government .hence it cannot be patent protected.

d. What are general obligations for enforcement of Intellectual property rights?

Ans: (5 general obligations---5 marks)

Following are the general obligations for enforcement of IPR:

- i) Member countries shall ensure that enforcement procedures are available under their national law so as to permit effective action against any act of infringement of IPR covered by TRIPS agreement, including expeditious remedies to prevent infringement and remedies which constitute a deterrent to further infringements. These procedures shall be applied in such a manner as to avoid for safeguards against their abuse.
- ii) Procedures concerning the enforcement of IPR shall be fair & equitable. They shall not be unnecessarily complicated or costly or entail unreasonable time-limits or unwarranted delays.
- iii) Decisions on the merits of a case shall preferably be in writing & reasoned & shall be based only on evidence. They shall be made available at least to the parties to the proceeding without undue delay.
- iv) Parties to the proceeding shall have an opportunity for review by a judicial authority of final decision or of at least the legal aspects of initial judicial decision on the merits of a case. However there shall be no obligation to provide an opportunity for review of acquittals in criminal case.
- v) TRIPS agreement does not create any obligation to put in place a judicial system for the enforcement of IPR distinct from that for the enforcement of laws in general, nor does it affect the capacity of member countries to enforce their laws in general. There is no obligation with respect to distribution of resources between enforcement of IPR & enforcement of laws in general.

e. Write the conditions to apply for digital signature.

What is digital Signature? (1 mark)

Private companies and governments agencies all around the world make huge investments for the automation of their processes and in the management of the electronic documentation.

The main requirement in the management of digital documentation is its equivalence, from a legal perspective, to paperwork, affixing a signature on a digital document is

the fundamental principle on which are based the main processes of authorization

and validation, apart from the specific area of application.

Main benefits for the introduction of digital signing processes are cost reduction and complete automation of documental workflow, including authorization and validation phases.

In essence, digital signatures allow you to replace the approval process on paper, slow and expensive, with a fully digital system, faster and cheaper.

The digital signature is simply a procedure which guarantees the authenticity and integrity of messages and documents exchanged and stored with computer tools, just as in traditional handwritten signature for documents.

Conditions: (1 mark)

Essentially The digital signature of an electronic document aims to fulfill the

following requirements:

- that the recipient can verify the identity of the sender (authenticity)
- that the sender can not deny that he signed a document (non-repudiation)

A typical digital signature scheme consists of three algorithms: (3 marks)

i) An algorithm for generating the key that produces a key pair (PK, SK): PK (public key, public key) is the public key signature verification while SK (Secret Key) is the private key held by the petitioner, used to sign the document.

ii) A signature algorithm which, taken as input a message m and a private key SK produces a signature

iii) A verification algorithm which, taken as input the message m , public key PK and a signature, accepts or rejects the signature.

To generate a digital signature is necessary to use the digital asymmetric key pair, attributed unequivocally to a person, called holder of the key pair:

The private key is known only by the owner, it is used to generate the digital signature for a specific document;

The public key is used to verify the authenticity of the signature.

Once the document is signed with the private key, the signature can be verified successfully only with the corresponding public key. Security is guaranteed by

the impossibility to reconstruct the private key (secret) from the public, even if the

two keys are uniquely connected.

- f. **What does a CA certifying, while issuing the digital signature certificate? Explain.**

Certifying Authority to issue Digital Signature Certificate (5 points--3 marks)

(1) Any person may make an application to the Certifying Authority for the issue of a Digital Signature Certificate in such form as may be prescribed by the Central Government.

(2) Every such application shall be accompanied by such fee not exceeding twenty-five thousand rupees as may be prescribed by the Central Government, to be paid to the Certifying Authority Provided that while prescribing fees under sub-section (2) different fees may be prescribed for different classes of applications;

(3) Every such application shall be accompanied by a certification practice statement or where there is no such statement, a statement containing such particulars, as may be specified by regulations.

(4) On receipt of an application under sub-section (1), the Certifying Authority may, after consideration of the Certification practice statement or the other statement under sub-section (3) and after making such enquiries as it may deem fit, grant the Digital Signature Certificate or for reasons to be recorded in writing, reject the application :

(5) Provided that no Digital Certificate shall be granted unless the Certifying Authority is satisfied that-

(a) the application holds the private key corresponding to the public key to be listed in the Digital Signature Certificate;

(b) the applicant holds a private key, which is capable of creating a digital signature;

(c) the public key to be listed in the certificate can be used to verify a digital signature affixed by the private key held by the applicant : Provided further that no application shall be rejected unless the applicant has been given a reasonable opportunity of showing cause against the proposed rejection.

**Representation upon issuance of Digital Signature Certificate (4 points---
2marks)**

A Certifying Authority while issuing a Digital Signature Certificate shall certify that-

- (a) it has complied with the provisions of this Act and the rules and regulations made there under;
- (b) it has published the Digital Signature Certificate or otherwise made it available to such person relying on it and the subscriber has accepted it;
- (c) the subscriber holds the private key corresponding to the public key, listed in the Digital Signature Certificate;
- (d) the subscriber's public key and private key constitute a functioning key pair;
- (e) the information contained in the Digital Signature Certificate is accurate; and
- (f) it has no knowledge of any material fact, which if it had been included in the Digital Signature Certificate would adversely affect the reliability of the representations made in clauses (a) to (d).