

Module 3

Introduction to Intellectual Property

Syllabus:

Introduction To Intellectual Property: Role of IP in the Economic and Cultural Development of the Society, IP Governance, IP as a Global Indicator of Innovation, Origin of IP History of IP in India. Major Amendments in IP Laws and Acts in India.

Patents: Conditions for Obtaining a Patent Protection, To Patent or Not to Patent an Invention. Rights Associated with Patents. Enforcement of Patent Rights. Inventions Eligible for Patenting. Non-Patentable Matters. Patent Infringements. Avoid Public Disclosure of an Invention before Patenting. Process of Patenting. Prior Art Search. Choice of Application to be Filed. Patent Application Forms. Jurisdiction of Filing Patent Application. Publication. Pre-grant Opposition. Examination. Grant of a Patent. Validity of Patent Protection. Post-grant Opposition. Commercialization of a Patent. Need for a Patent Attorney/Agent. Can a Worldwide Patent be Obtained. Do I Need First to File a Patent in India. Patent Related Forms. Fee Structure. Types of Patent Applications. Commonly Used Terms in Patenting. National Bodies Dealing with Patent Affairs. Utility Models.

Textbook :

Intellectual Property A Primer for Academia by Prof. Rupinder Tewari Ms. Mamta Bhardwaj

Reference Book:

Intellectual Property Rights by N.K.Acharya Asia Law House 6th Edition. ISBN: 978- 93-81849-30-9.

3.1 Introduction To Intellectual Property:

Definition of Intellectual Property : Intellectual Property (IP) is a special category of property created by human intellect in various fields such as arts, literature, science, trade, etc. Since IP is a novel creation of the mind, it is intangible (invisible and indivisible) in nature, differing from tangible properties like land, house, gold, and car.

Intellectual Property Rights (IPR): IPR refers to the privileges accorded to the creator or inventor. These rights are given in exchange for revealing the process of creation or invention to the public. The inventor is conferred with special rights to use, sell, distribute, offer for sale, and restrict others from using the invention without prior permission.

Purpose of IPR : The primary purposes of IPR include encouraging innovation and creativity, protecting the rights of creators and inventors, and maintaining a balance between public access and private rights.

Types of Intellectual Property : Broadly, IP comprises two branches: Copyrights and Related Rights, and Industrial Property Rights.

1. **Copyrights and Related Rights :** Copyrights and Related Rights refer to creative expressions such as books, publications, architecture, music, wood/stone carvings, pictures, portrays, sculptures, films, and software/databases.
2. **Industrial Property Rights :** Industrial Property Rights focus on protecting innovations and brands. This category includes patents, trademarks, trade services, industrial designs, and geographical indications.

Key Features of IP Categories:

Copyrights (Creative expressions): Copyright is the right bestowed on the owner or creator in relation to publication, and distribution of a piece of writing, music, picture or related works. Copyright also applies to technical contents such as software, datasheets and related documents.

Patents (Protecting inventions): A patent is a legal record that bestows the holder the exclusive right over an invention as per the claims, in a limited geographical domain and for a limited duration by thwarting possible interested parties from any form of manufacture, use or sale of the product or outcome of the invention.

Trademarks(Brand identity): A trademark is a sign that suitably differentiates the owner's goods or services from those of others.

Trade services: Any services in relation to trade or any trade related financing, lending or other financial accommodation provided(or to be provided) by the bank, including but not limited to issuance/amendment of letter of credit, document ar- rival under letter of credit, application for negotiation and inquiries etc.,

Industrial Designs(Aesthetic aspects): An industrial design protection is related to certain specific ornamental shapes associated with products whose duplication the owner may wish to prevent.

Geographical Indications(Origin-based products):A geographical indication (GI) is a name or sign used on products which corresponds to a specific geographical location or origin. Items that meet geographical origin and quality standards may be endorsed with a government-issued stamp which acts as official certification of the origins and standards of the product.

3.2 Role of IP in the Economic and Cultural Devel- opment of the Society

Creativity and Progress: Creativity being the keystone of progress, no civilized society can afford to ignore the basic requirement of encouraging the same. The economic and social development of a society is largely dependent on creativity . The protection provided by the IPR to the creators/innovators is in fact an act of incentivization(providing legal protection and exclusive rights to creators) for encouraging them to create more and motivates others to create new.

Negative Impact of Rigid IPR: However, if IPR is practiced rigidly, it may have a negative impact on the progress of society. For example, compliance with the Trade- Related Aspects of Intellectual Property Rights (TRIPS) Agreement has affected the farming community as they are unable to store seeds for the next crop. Multinational companies regulate the price of seeds, which is generally beyond the reach of a majority of the farmers.

Balancing IPR with Exceptions:To address or mitigate the negative impact of IPR, certain laws, exceptions and limitations associated with IPR have been enacted to main-

tain a balance between the interests of the creators/inventors and the community.

For example, farmers rights under the Protection of Plant Varieties and Farmers Rights (PVP&FR) Act, 2001 entitles them to many privileges, such as Rights on seeds provides rights to the farmers to save seeds, use seeds and share, exchange or sell seeds to other farmers. Right to protection against accusations of infringement protects the farmers from infringement and other legal accusation levied upon them due to his legal ignorance in using other's plant varieties.

The use of copyrighted material for education and religious ceremonies is exempted from the operation of the rights granted in the Copyright Act. Similarly, a patent can be revoked in favor of compulsory licensing by the government during an emergency or a natural calamity.

Society's Interest and Government Intervention: If an invention/creation is not in the interest of society, it is not registered by the government for grant of any rights associated with IP.

For example, cloning of human embryos is banned for IP protection, and so is the creation of super microbial pathogens, which can play havoc with human lives.

Traditional Knowledge (TK) and Genetic Resources: India is enriched with massive biodiversity and genetic resources and their use is embodied in what is referred to as Traditional Knowledge (TK). However, the use of such knowledge and resources are not limited to local contexts as many innovations relate to and draw on them. Therefore, the main issue of concern is to protect TK and genetic resources, which are rapidly coming under the governance of sometimes conflicting IPR policies. To derive maximum benefit from them, the establishment of adequate legal infrastructure and enforcement is required.

Initiatives and Benefits: With initiatives like 'Make in India', 'Atmanirbhar Bharat' and supporting local homegrown brands, and easy as well as accessible approach to patents and trademarks registration, it is possible to reap the benefits of our resources.

3.3 IP Governance(Role of National Agencies and In-ternational Organizations)

National IP Governance in India : Since IP is an integral component of human society, each and every nation has dedicated agencies for laying out the guidelines, implementation and enforcement of IP related matters. In India, many organizations/agencies

deal with various aspects of IP. The governance of all categories of IP, except the Plant Variety and Farmers' Rights Act, is carried out by the Department for Promotion of Industry & Internal Trade (DPIIT) under the guidance, sponsorship, or authority of the Ministry of Commerce and Industry, Government of India (GoI).

Indian Organizations for IP : There are a few other dedicated organizations/departments established by the government to promote patent-ecosystem (patent awareness, patent filing and patent commercialization) in India e.g.

TIFAC (Technology Information Forecasting and Assessment Council)

NRDC (National Research Development Corporation)

CIPAM (Cell for IPR Promotion and Management)

International IP Governance - WIPO : In order to create a hassle-free exchange of IP related activities amongst all the nations, it is imperative to have minimum standards of rules and regulations pertaining to all aspects of IP including rights, empowerment, exceptions, etc. To achieve this goal, the United Nations (UN) has established an organization called the World Intellectual Property Organization (WIPO). This agency is at the forefront of imparting knowledge about IP and governs international filing and registration of IP through various Conventions and Treaties like Paris Conventions, Patent Cooperation Treaty (PCT), Rome Convention, Berne Convention, etc.

3.4 IP as a Global Indicator of Innovation

IP as an Indicator of Innovation : Intellectual Property (IP), especially patents, plays a crucial role as an indicator of innovation. Global ranking organizations use IP as a parameter to evaluate Science, Technology, and Innovation (STI) ecosystems.

Example: Scimago 2020 Report: The Scimago 2020 Report, a publicly available online portal ranking journals and countries based on Scopus data, highlights India's position. In the report, India is ranked 4th position in the parameter of 'Research Publications' but 50th position in the parameter of 'Intellectual Property Rights.'

Importance of IP in Global Rankings : IP is reflective of a nation's innovation and research output. There is a need to sensitize teaching and scientific communities about the importance of IP. Creating infrastructure in higher learning institutes for IP awareness and utilization is crucial.

3.5 Origin of IP

Ancient IP Practices: Though there is no official record of the origin of IP, rudimentary forms of IP were believed to exist around 500 Before the Common Era(BCE) in Sybaris, a state of Greece.

Sybaris Example : Natives of Sybaris were granted a year's protection for their intellect to create "any new improvement in luxury".

Medieval Europe : Practical IP governance began taking shape in medieval Europe.

1623 Legislation in Britain : Britain passed an IP legislation in 1623, allowing guilds(association of artisans or merchants) to create innovations and bring them to market for trade purposes. However, it faced public resentment and was replaced by the 'Statute of Monopolies.

Statute of Monopolies (1624): 'Statute of Monopolies' granted rights to the original creator/inventor for 14 years, addressing public concerns.

Statute of Anne (1710): Another legislation, 'Statute of Anne', was passed by the British parliament in 1710. This legislation aimed at strengthening copyrights by providing rights to the authors for recreation and distribution of their work. The work could also be renewed for another 14 years.

Global Adoption of IP Legislation : By the end of the 18th century and the beginning of the 19th century, almost every country started laying down IP legislation to protect their novel inventions and creations.

3.6 History of IP in India

In this section, the history of IP in India is explored, covering the pre-independence era, amendments and developments, the post-independence era, and key milestones in shaping Indian patent laws.

3.6.1 History of patents :

Patents in Pre-Independence Era:

The history of the Indian patent system dates back to the pre-independence era of British rule. The first patent-related legislation in India was Act VI of 1856, adapted from the British Patent Law of 1852. The objective of this legislation was to encourage the inventions of new and useful manufactures. The rights conferred to the inventor were termed as 'Exclusive Privileges'. In 1859, certain amendments were made to the Act:

Amendments in 1859 and Developments:

Grant of exclusive privileges to useful inventions.

Increase of priority time from 6 months to 12 months.

Exclusion of importers from the definition of the inventor.

The world's first patent was granted in 1790 to Samuel Hopkins in the USA for the "making of potash and pearl ash by a new apparatus and process". In India, the first patent (known as 'Exclusive Privileges' at that time) was awarded in 1856 to a civil engineer, George Alfred DePenning from Calcutta, for his invention, 'An Efficient Punkah Pulling Machine'.

Inclusion of 'Designs' in Patent Act: A few years later, it was felt that 'Designs' could also pass the criteria of the invention and thus should be included in the Patent Act. The new Act was rechristened as "The Patterns and Designs Protection Act" under Act XIII of 1872. This Act was further amended in 1883 (XVI of 1883) to include the provision of protection for 'Novelty' in the invention.

The Indian Patents and Designs Act, 1911: At the beginning of the 20th century, all the earlier Acts related to inventions and designs were done away with the introduction of 'The Indian Patents and Designs Act, 1911' (Act II of 1911). As per this Act, the governance of patents was placed under the management of the Controller of Patents. In the next three decades, many amendments were introduced for reciprocal arrangements with other countries for securing priority dates. These amendments dealt with:

Use of invention by the government.

Patent of Addition.

Enhancing the term of the patent from 14 years to 16 years.

Filing of 'Provisional Application' and submission of 'Complete Application' within 9 months from the date of filing the application.

Patents in Post-Independence Era :

After India got independence in 1947, many patent experts felt the need to review the Indian Patents and Designs Act, 1911, keeping the national interest (economic and political) in mind. A dedicated committee, chaired by a renowned Justice Bakshi Tek Chand (retired Judge of Lahore High Court), was constituted in 1949 to review the advantages of the patent system. The committee submitted a plethora of recommendations, including :

Misuse of patents rights needs to be prevented.

There must be a clear indication in the Act that food, medicine and surgical and curative devices should be made available to the masses at the cheapest rate by giving reasonable compensation to the owner of the patent.

Amendments in Sections 22, 23 and 23A of the Patent and Design Act, 1911, on the lines of the UK Patent Act.

Amendments in 1950 and 1952: These recommendations were introduced in the Act XXXII of 1950. Two years later, another amendment (Act LXX of 1952) was made to provide compulsory licensing of patents related to food, drugs and chemicals killing insects and microbes. Based on these amendments, a bill was presented in the parliament in 1953 but was rejected.

Committee in 1957 and New Legislation in 1965: In 1957, the central government constituted yet another powerful committee under the chairmanship of Justice N. Rajagopala Ayyangar to seek inputs for further strengthening the Indian Patent Law. The committee submitted its report to the government in 1959. It comprised two segments addressing:

1. General aspects of the patent laws.
2. Bill rejected back in 1953.

Patents Act, 1970 : The revised patent legislation was submitted to the Lok Sabha in 1965. After many hiccups, clarifications, and modifications, the Patents Act, 1970 (http://www.ipindia.nic.in/writereaddata/Portal/IPOAct/1_31_1_patent-act-1970-11march2015.pdf) was introduced, superseding all the previous laws related to the patents. However, the Indian Patents and Designs Act of 1911 remained applicable for designs only until 1994.

India Signs TRIPS Agreement in 1995: In 1995, India signed the TRIPS Agreement and got a transition period of 10 years (1995-2005) to make domestic laws compatible with the international treaty.

Patents (Amendment) Act, 1999 : In 1999, The Patents (Amendment) Act, 1999 was introduced providing for the filing of applications for ‘Product Patents’ in the areas of drugs, pharmaceuticals and agrochemicals (earlier, only ‘processes’ were protected under the Patent Act). The new Patent Act also included provisions for the grant of Exclusive Market Rights (EMRs) for the distribution and sale of pharma products on fulfillment of certain conditions.

Patents (Amendment) Act, 2002: The second amendment to the 1970 Act was made through the Patents (Amendment) Act, 2002 (Act 38 of 2002). This Act introduced new Patent Rules, 2003, thus replacing the earlier Patents Rules, 1972. The major amendments were:

The protection term of 20 years for all inventions from the date of filing.

Scope of non-patentable inventions including Traditional Knowledge expanded.

Disclosure of source and geographical origin of biological material made compulsory.

Provisions concerning convention countries simplified.

Establishment of Appellate Board.

Compulsory license provisions strengthened.

Simplification of procedures.

Harmonization with Patent Cooperation Treaty (PCT) provisions.

Patents (Amendment) Act, 2005 : With the rapidly changing scenario of IPR at a global level, a need was felt to further amend the Patent Act, 1970. The highlight of the Patents (Amendments) Act 2005 were:

Product patent for inventions in all fields of technology.

New forms of known substances excluded to prevent evergreening of the patent.

Rationalization of the opposition procedure.

Introduction of pre-grant opposition by representation.

Introduction of post-grant opposition.

Compulsory license for export purposes.

Compulsory license for manufacture.

Extension of grace period from 6 months to 12 months for filing a patent, if published in government exhibition.

International Agreements : India is a member of all prominent Conventions and Treaties related to the facilitation of the inventors for international filing and protecting the rights over the inventions globally. The important international agreements to which India is a signatory party are TRIPS Agreement (1995), Paris Convention (1883), PCT (1970) and Budapest Treaty (1977) and many more.

3.6.2 History of Copyrights and Related Rights :

The concept of copyrights started way back in the 15th century. However, the actual need for copyright law was felt only after the invention of printers and copiers. Before the invention of printers, writing could be created only once. It was highly laborious, and the risk of errors was involved in the manual process of copying by a scribe.

During the 15th and 16th centuries, printing was invented and widely established in Europe. Copies of 'Bibles' were the first to be printed. The government had allowed the printing of the documents without any restrictions, but this led to the spreading of a lot of governmental information. Subsequently, the government started issuing licenses for printing.

Phases of Copyrights Law in India: The evolution of copyright law in India occurred in three phases. The first two phases were enacted during the British Raj.

1. **First Phase (1847) :** In the first phase, the concept of copyrights was introduced in 1847 through an enactment during the East India Company's regime. The term of copyrights was for the lifetime of the author plus seven years after death. Unlike today, copyrights in work were not automatic. The registration of copyright was mandatory for the enforcement of rights under the Act. The government could grant a compulsory license to publish a book if the owner of the copyright, upon the death of the author, refused to allow its publication.
2. **Second Phase (1914):** In the second phase, the Indian legislature, under the British Raj, enacted the Copyright Act of 1914 based on the Imperial Copyright Act (1911) of the UK. An Act for criminal sanction for an infringement was introduced.
3. **Third Phase (1957) :** The third phase of the copyrights regime was witnessed post-independence. The Copyright Act 1957 was enacted, superseding the Indian Copyright Act, 1914, to suit the provisions of the Berne Convention (1886). The 1957 Act has been amended six times (1983, 1984, 1992, 1994, 1999, 2012) to comply with the WIPO Copyright Treaty (WCT), 1996, and WIPO Performances and Phonograms Treaty (WPPT), 1996.

Evolution of Copyright Laws in the Digital Age: Most of the amendments in copyright laws were in the digital environment, such as penalties for circumvention of technological protection measures; rights of management information; liability of internet service providers; introduction of statutory licenses for the cover versions (the cover version is a re-recording or re-composition of the original song by other artists or composers and is also termed as a remake, cover song, revival, etc.) and broadcasting organizations; ensuring the right to receive royalties for authors and music composers; exclusive economic and moral rights to performers; equal membership rights in copyrights societies for authors and other right owners and exception of copyrights for physically disabled to access any works.

India is an active member of nearly all significant international Conventions/Treaties related to Copyright Law, e.g., the Berne Convention as modified in Paris in 1971, the Universal Copyright Convention (1951), the Rome Convention (1961), WCT, WPPT, and (TRIPS, 1995).

3.6.3 History of Trademarks (TM):

The first statutory law related to Trademarks (TM) in India was the Trade Marks Act, 1940, which was carved out from the Trade Marks Act, 1938 of the UK. It was followed by

the incorporation of provisions of TM stated in the Indian Penal Code, Criminal Procedure Code, and the Sea Customs Act. Later on, Trade Marks Act, 1940 was rechristened as Trade and Merchandise Marks Act, 1958. Nearly four decades later, this Act was repealed by the Trade Marks Act, 1999. The need for this occurred to comply with the provisions of the TRIPS. It is the current governing law related to registered TM.

3.6.4 History of Geographical Indications:

India, as a member of WTO, enacted the Geographical Indications of Goods (Registration and Protection) Act, 1999. It came into force with effect from 15th September 2003. Geographical Indicators have been defined under Article 22 (1) of the WTO Agreement on TRIPS.

3.6.5 History of Trade Secrets

In India, Trade Secrets are protected despite the absence of specific laws dedicated to them. Courts have recognized and upheld Trade Secrets protection through different statutes(laws) like contract law, Copyright law, principles of equity, and the common law action of breach of confidence, effectively treating it as a breach of contractual obligation.

3.6.6 History of Semiconductor Integrated Circuits and Layout Designs

In the 21st century, Information Technology (IT) has revolutionized the economic and societal growth of the world economy. The rapid and tremendous scientific advancements in the field of IT resulted in the creation of a new class of IP called the Layout-Design of the Semiconductor Integrated Circuits.

International Regulations : Various organizations, including WTO and TRIPS Agreement, laid down rules and regulations regarding the protection of Semiconductor Integrated Circuits and Layout Designs (SICLD).

SICLD Act, 2000: India, being a member of the WTO, also passed an Act called the SICLD Act, 2000. This Act is TRIPS compliant and fulfills the conditions of the

TRIPS agreement (Articles 35 to 38) concerning the protection of SICLD.

3.6.7 History of Plant Varieties

Plant Varieties: Historical Overview : Till the 1970s, not much emphasis was laid on patentable matter originating from animals and plants. However, microbes and microbial products/processes were patentable.

Introduction of Sui Generis Law : To include all kinds of biological materials under the ambit of patent laws, a decision to enact a new sui generis law under the International Convention for the Protection of New Varieties of Plants (UPOV, 1978) and UPOV, 1991 was taken. These decisions were made to address environmental and public interest concerns.

PPV&FR Act, 2001: Compliance with TRIPS

The Indian Patents Act, 1970 excludes "plants and animals in whole or any part thereof other than microorganisms" from patentability. To comply with the mandate of Article 27.3 (b) of TRIPS, India adopted the PPV&FR Act, 2001 as a sui generis regime protecting not only new plant varieties but also farmers' rights.

3.6.8 History of Traditional Knowledge :

Definition: Traditional Knowledge (TK) is the ancient and indigenous knowledge held by any community or a group of people. In olden times, it was not recorded anywhere and was available only in oral form. So, Traditional Knowledge (TK) was verbally passed on to future generations.

Scope: TK is not limited to a particular field. It covers a wide area, such as the use of plants or their extracts for medical treatments, a traditional form of dance, particular techniques used for hunting, craft knowledge/skills, and so on.

Transmission: Though there is no official record, some forms of TK find appearance in the culture, stories, legends, folklore, rituals, songs, etc. Previously, there was no mechanism available to protect TK, but now, it has been recognized as Intellectual Property Rights (IPR) under the TRIPS Agreement.

Government Initiative: The Government of India has created a digital library termed as Traditional Knowledge Digital Library (TKDL) as a repository of 2,50,000 formulations

of various systems of Indian medicine.

3.6.9 History of Industrial Design Protection

A design is a creation of the human mind, which is appealing to the eyes and attracts the attention of the viewers. The need to protect Industrial Designs (ID) was recognized in the 18th century, leading to the enactment of the 'Patterns and Designs Act' in 1872 for the first time.

Transition Period: 1872 to 1911

The 'Patterns and Designs Act' of 1872 aimed to protect the rights over the creation of designs and novel patterns by inventors. However, in 1907, this Act was replaced by the British Patents and Designs Act, laying the foundation for the Indian Patents and Designs Act, 1911.

Separation of Acts: 1970

In 1970, a significant development occurred with the enactment of a separate Act for patents, namely the Patent Act, 1970. The Indian Patents and Designs Act, 1911, continued to govern designs exclusively.

Dedicated Act for Industrial Designs: 2000

Finally, in the year 2000, recognizing the distinct nature of Industrial Designs, a dedicated Act for ID was passed. This Act came into force in 2001, marking a crucial milestone in the protection of industrial designs in India.

3.6.10 History of Biodiversity Conservation

Biodiversity is an inseparable part of human livelihood, with mentions of protecting biodiversity dating back to the times of Chandragupta and Ashoka. In those eras, trees and forests were classified, establishing reserved categories.

Evolution of Legal Protection

In 1927, the 'Indian Forest Act' was a significant step towards legal protection for biodiversity. Later, the 'Wildlife Protection Act, 1972' was enacted, further strengthening legal safeguards.

National Forest Policy of 1988

The year 1988 saw the enactment of the 'National Forest Policy' bringing revolutionary changes in the conservation and management of biodiversity in India.

Acts and Policies for Environmental Protection

Several Acts and policies are in force to protect the environment and biodiversity in India. These include the 'Mining and Mineral Development Regulation Act, 1957', 'Water (prevention and control of pollution) Act, 1974', 'Forest Conservation Act, 1980', 'Biological Diversity Act, 2002', 'Scheduled Tribes and other Traditional Forest Dwellers (recognition of rights) Act, 2006', 'National Biodiversity Action Plan, 2009', 'National Environment Policy, 2006', and more.

3.7 Major Amendments in IP Laws and Acts in In- dia:

In order to fill the gaps existing in the IP Laws and Acts and also to introduce new guidelines/directions based on the current scenario (socially and politically), each nation keeps on updating the concerned IP Laws and Acts. Some of the salient amendments made in Indian Laws and Acts on IPR are mentioned below :

Patents

1. **1856:** The Act VI of 1856 on the protection of inventions based on the British Patent Law of 1852.

2. **1859:**

Rights renamed as 'Exclusive Privileges.'

Time for priority increased from 6 months to 12 months.

3. **1883:**

The Patterns and Designs Protection Act.

Introduction of novelty in the invention.

A grace period of 6 months for the disclosure of the invention.

4. **1911:** Renamed as 'The Indian Patent and Design Act' and brought under the management of 'Controller of Patents.'

5. **1930:**

Introduction of Patent of Addition.

Government can use the invention if required.

The term of patent protection increased from 14 to 16 years.

6. **1945:**

Filing of the provisional specification to secure the priority date.

Provision of submitting complete specifications within 9 months.

7. **1949:** Dedicated Committee formed under the leadership of Justice Bakshi Tek Chand for reviewing the patent system as per the national environment.

8. **1950:**

A working statement needs to be submitted at the Patent Office.

Endorsement of the Patents with the words 'License of Right' on the application made by the government so that the Controller could grant the license.

9. **1952:**

Provision of 'Compulsory License' in the areas of food, medicine, and insecticide germicide.

Process for producing substance or any invention relating to surgical or curative devices.

10. **1965:** After incorporation of the recommendation submitted by the committee formed in 1949, a new bill was introduced in Lok Sabha but was not cleared.

11. **1967:**

Again submitted to Parliamentary Committee.

1911 Act remained applicable for Designs.

12. **1970:** The Patent Act, 1970 passed by the Parliament Committee.

13. **1972:** The Patent Act, 1970 came into force with the introduction of patent rules.

14. **1995:** TRIPS Agreement was signed by India and got a transition period 1995-2005 to make domestic laws compatible with TRIPS.

15. **1999:**

Introducing the provisions for receiving the applications for the product patent in the field of pharmaceuticals and agro-chemicals (mailbox).

Provisions for the grant of EMRs for distribution and sale of pharma products on fulfillment of certain conditions.

Grant of EMR subject to certain conditions. (After the amendments (1999), the product patents related to the pharmaceuticals and agrochemicals were kept on hold for examination till 2005. It is called a mailbox or black box.)

16. **2002:**

The uniform 20-year term of the patent for all inventions.

Disclosure of source and geographical origin of biological material made compulsory.

Establishment of Appellate Board.

Compulsory License provisions strengthened.

17. **2003:** The Patents Rules, 2003 were introduced.

18. **2005:**

Product patent for inventions in all fields of technology, including food, drug, chemicals, and microorganisms.

New forms of known substances excluded to prevent the ever-greening of the patent.

Introduction of pre-grant opposition.

Introduction of post-grant opposition.

Extension of grace period to 12 months.

Copyrights and Related Rights

19. **1847:**

The concept of Copyrights in India was introduced.

Validity - Lifetime+7 years but not more than 42 years in total.

20. **1914:** Copyright Act, 1914 was introduced based on the Imperial Copyright Act, 1911 of the UK.
21. **1957:** Copyright Act, 1914 was replaced with Copyright Act, 1957 with minor modifications.
22. **1984:** Penalty on second and subsequent conviction.
23. **1994:** Registration of Copyright Society made mandatory.
24. **2012:**
 - To comply with international Treaties for copyrights protection in the digital environment.
 - Right to receive royalties for authors and music composers.
 - Exception of copyrights for physically disabled persons to access any work.
25. **2013:** Copyrights Rules, 2013 introduced.

Trademarks

26. **1940:** Trademarks Registry established in India.
27. **1958:** The Trade and Merchandise Marks Act, 1958 enacted as per TRIPS Agree- ment.
28. **1999:** Amended to avoid duplicity and ensure securing proprietors' trade and good-will.
29. **2002:** Trademarks Rules introduced.
30. **2010:**
 - Amended to comply with Madrid Protocol for international filing.
 - Provision for filing opposition of the registration within 4 months.
31. **2013:** Trademarks Rules introduced.

Geographical Indications

- 32. **1999:** Being a member of the World Trade Organization (TRIPS), GI of goods (Registration and Protection) Act was introduced.
- 33. **2002:** The Geographical Indications of Goods (Registration and Protection) Rules, 2002 was introduced.
- 34. **2003:** The Geographical Indications of Goods (Registration & Protection) Act came into force.

Designs

- 35. **1872:** Patterns and Designs Protection Act introduced for the protection of new patterns and designs.
- 36. **1888:** Amended as Invention and Design Act, 1988 for the protection of new inventions and designs.
- 37. **1911:** Renamed as The Indian Patent and Design Act.
- 38. **2000:** Design Act, 2000 was introduced; separated from the Indian Patent and Design Act.
- 39. **2001:** Design Rules, 2001 introduced.

Semiconductor Integrated Circuits Layout Design (SICLD)

- 40. **2000:** Semiconductor Integrated Circuits Layout Design (SICLD) Act 2000 introduced as a signatory of WTO.
- 41. **2001:** SICLD Rules introduced.

Protection of Plant Varieties and Farmers' Rights (PPV&FR)

- 42. **1970:** The Patent Act, 1970 excluded plants and animals in whole or in any part from patentability (in 1999 amendments).

- 43. **1991:** Enactment of protection of new varieties of plants on a sui generis basis on the lines of UPOV.
- 44. **2001:** In line with TRIPS Agreement enactment of PPV&FR Act was introduced.

Biological Diversity

- 45. **2002:** The Biological Diversity Act, 2002 introduced on the lines of the Convention on Biological Diversity (CBD, 1992).
- 46. **2003:**
 - Establishment of National Biodiversity Authority.
 - Designation of repositories under the Biological Diversity Act.
- 47. **2004:** Biological Diversity Rules introduced.

CATEGORIES OF INTELLECTUAL PROPERTY

Intellectual Property (IP) is a vast field comprising technology-led inventions, work of artisans, novel Industrial Designs, unique brands of commercial items, and Traditional Knowledge being practiced continuously over centuries for the production of goods (carpets, textiles, food products, etc.). In order to understand the extensive field of IP, it has been divided into various categories. In India, these categories include:

Patents

Copyright and Related Rights

Trademark

Trade Secrets

Industrial Designs

Geographical Indications

Semiconductor Integrated Circuits Layout Designs

3.8 Patents

A patent is an exclusive right granted for an innovation that generally provides a new way of doing something or offers a new technical solution to a problem. The exclusive right legally protects the invention from being copied or reproduced by others. In return, the invention must be disclosed in an application in a manner sufficiently clear and complete to enable it to be replicated by a person with an ordinary level of skill in the relevant field.

3.9 Conditions for Obtaining Patent Protection

There is a set criterion, as provided in Section 2(1)(j) of the Patents Act, 1970, which must be fulfilled for a product or a process to qualify for the grant of a patent. The criterion encompasses:

Novelty - Not part of 'State of the Art'. The innovation claimed in the patent application is new and not known to anybody in the world. In other words, the innovation is a) not in the knowledge of the public, b) not published anywhere through any means of publication, and c) not claimed in any other specification by any other applicant.

Inventive Step - Not obvious to the person(s) skilled in the art. The innovation is a) a technical advancement over the existing knowledge, b) possesses economic significance, and c) not obvious to a person skilled in the concerned subject.

Capable of Industrial Application - For the benefit of society. The invention is capable of being made or used in any industry.

3.10 To Patent or Not to Patent an Invention

Once an invention has been developed, the inventor has to decide whether to exploit the invention for personal benefits as provided by the statutory laws of the country or put it in the public domain. By and large, the inventor prefers the former option. Only a minuscule of inventions are placed in the public domain without claiming any benefits. In the latter case, anybody can exploit the innovation for commercial or societal benefit

without paying any money to the inventor.

If the owner of an invention wishes to seek monetary gains, he can choose from either of the two options, i.e. patenting or Trade Secret. If the inventor is absolutely sure of maintaining the secrecy of the invention for a very long period (maybe 100 years or more) and the probability of reverse engineering of the technology is nil or very low, then the 'Trade Secret' category is preferred. If the invention has a short life span or can be kept secret only for a small period of time (a couple of years or so) or the probability of reverse engineering is high once the invention is in the public domain, then the 'patent' category is preferred.

3.11 Rights Associated with Patents

As per the Court of Law, a patent owner has the right to decide who may or may not use the patented invention. In other words, the patent protection provided by the law states that the invention cannot be commercially made, used, distributed, imported, or sold by others without the patent owner's consent. The patent owner may permit other parties to use the invention on mutually agreed terms. As a matter of fact, the patent rights are negative rights as the owner is restricting others from using the patent in any manner without his prior permission. The patent holder may choose to sue the infringing party to stop illegal use of the patent and also ask for compensation for the unauthorized use.

3.12 Enforcement of Patent Rights

Enforcement is the process of ensuring compliance with laws, regulations, rules, standards, and social norms. Patent rights are usually enforced by the judicial courts. The Court of Law has the authority to stop patent infringement. However, the main responsibility for monitoring, identifying, and taking action against infringers of a patent lies with the patent owner.

3.13 Inventions Eligible for Patenting

Range of Patentable Inventions: Patents may cover inventions in diverse fields, from everyday items like paper clips to advanced technologies such as nanotechnology chips or genetically modified organisms.

Misconceptions about Patent Awards: Contrary to common belief, patents are not exclusive to major scientific breakthroughs. Many patents are granted for incremental improvements over existing inventions.

Examples of Patentable Molecules: Single molecules, like penicillins, and their derivatives can receive multiple patents. These derivatives, achieved through structural modifications, exhibit new and improved properties.

Everyday Products with Patents: Various everyday products, including toothbrushes, shoes, pens, eyeglasses, textiles, and electronic devices, often incorporate patented technologies. Complex products like laptops, cars, and mobile phones may involve numerous patented components.

3.14 Non-Patentable Matters

The Patent Act, 1970 outlines certain exclusions regarding products and processes that are not eligible for patents. These exclusions include:

Inventions Contrary to Public Morality: Examples: Methods for human cloning, methods for gambling. **Mere Discovery**

Examples: Discovery of a new micro-organism occurring freely in nature, laws of gravity.

Discovery of a New Form of a Known Substance

Examples: Use of aspirin for heart treatment, which was originally patented for reducing fever and mild pains.

Frivolous Invention

Examples: Dough supplemented with herbs merely changing the taste, a 100 years calendar, bus timetable.

Arrangement or Rearrangement Examples: An umbrella fitted with a fan, a torch attached to a bucket.

Inventions falling within Section 20(1) of the Atomic Energy Act, 1962

Examples: Inventions related to compounds of Uranium, Beryllium, Thorium, Plutonium, Radium, Graphite, Lithium, and more as notified by the Central Government.

Literary, Dramatic, Musical, Artistic Work

Examples: Books, sculptures, drawings, paintings, computer programmes, mathematical calculations, online chatting method, method of teaching, method of learning a language, as they fall under the Copyright Act, 1957.

Topography of Integrated Circuits

Protection of layout designs of integrated circuits is provided separately under the Semiconductor Integrated Circuit Layout Designs Act, 2000.

Plants and Animals

Plants and animals in whole or in part, including seeds, varieties, and species, along with essentially biological processes for the production or propagation of plants and animals, are excluded from patent protection.

Traditional Knowledge An invention that effectively represents traditional knowledge or is an aggregation or duplication of known properties of traditionally known components is also excluded.

3.15 Patent Infringements :

Once a patent is granted to the applicant, they gain the exclusive right to use or exploit the invention in any capacity. Unauthorized use of the invention without prior permission from the owner constitutes patent infringement. Infringements can be categorized into two types:

Direct Infringement: Occurs when a product is substantially close to any patented product or when the marketing or commercial use of the invention is carried out without the owner's permission.

Indirect Infringement

Occurs when some amount of deceit or accidental infringement happens without any intentional infringement.

In case of patent infringement, the patentee has the right to sue the infringer through judicial intervention. Countries have specific laws to address such unlawful acts, and the patentee may seek the following reliefs:

Interlocutory/Interim Injunction

Damages or Accounts of Profits

Permanent Injunction

It is essential to note that the Central government retains the right (Section 100 of the Patent Act, 1970, Rule 32 of the Patent Rules, 2003) to use the invention in cases of national emergency or other circumstances of extreme urgency after notifying the owner.

3.16 Avoid Public Disclosure of an Invention before Patenting

Generally, an invention that has been either published or publicly displayed cannot be patented, as the claimed invention will lose the 'Novelty' criterion. However, under certain circumstances, the Patents Act provides a grace period of 12 months for filing a patent application from the date of its publication in a journal or presentation in a reputed scientific society or exhibition.

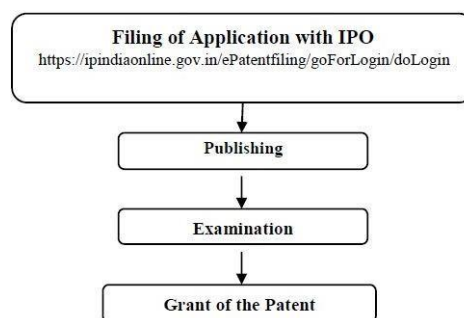
Sometimes, disclosure of an invention before filing a patent application is unavoidable, for example, selling your invention to a potential investor or a business partner who would like to know complete details of the invention to judge its commercial value. In such cases, it is advisable to sign a Non-Disclosure Agreement (NDA) or any other confidential agreement to safeguard your interest.

3.17 Process of Patenting :

In India, the process of granting a patent is a lengthy procedure that may take anywhere from 3-4 years or more. The major steps involved in this process are:

1. Prior art search,
2. Choice of Application to be Filed,
3. Patent Application Forms,
4. Jurisdiction of Filing Patent Application,
5. Publication,
6. Pre-grant Opposition,
7. Examination,
8. Grant of a Patent,
9. Validity of Patent Protection,
10. Post-grant Opposition.

Some major steps involved in this process are listed in the following figure.



1. Prior Art Search:

Before an inventor embarks upon the patent filing process, he has to ensure that his invention is 'novel' as per the criterion for the grant of a patent. For this, he has to check whether or not his invention already exists in the public domain. For this, he needs to read patent documents and Non-Patent Literature (NPL), scientific journals/reports/magazines, etc. The information lying in the public domain in any form,

either before the filing of the patent application or the priority date of the patent application claiming the invention, is termed as Prior Art.

Conducting a prior art search before filing the patent has advantages as it averts infringement, tracks research and development, and provides access to detailed information on the invention. The prior art search is carried out on the parameters such as novelty, patentability, state of the art, infringement, validity, and freedom to operate. The commonly used databases for prior art search fall into two categories: Patents Databases and NPL.

Patents' Databases :

Indian Patent Advanced Search System (InPASS- <http://ipindiaservices.gov.in/publicsearch/>).

Patentscope (WIPO- <https://www.wipo.int/patentscope/en/>).

Espacenet (EU- <https://worldwide.espacenet.com/patent/>).

USPTO (USA- <https://www.uspto.gov/>).

Google Patents Advanced Search (<https://patents.google.com/advanced>).

Orbit Intelligence (<https://www.questel.com/business-intelligence-software/orbit-intelligence/>).

Derwent Innovation (<https://clarivate.com/derwent/solutions/derwent-innovation/>).

PROQUEST (<https://about.proquest.com/search/?searchKeyword=patent+>).

Non-Patent Literature (NPL):

Scholarly publications: Handbooks, Textbooks, Withdrawn Patents, Encyclopedias, Journals (IEEE, Research Gate, Springer, Wiley Online Library, etc.), Dissertations, NCBI's PubMed, Conference Proceedings, Technical Reports, Public Conferences, etc.

Industry/trade publications: Industry reviews and public disclosures (Social media, YouTube, Books, Magazines, Datasheets, Blueprints, etc.).

Others: Newspapers, Websites, Technology blogs, Researchers' websites, etc.

Although the majority of NPL data is available freely on the public forum, some of the journals are paid and can be accessed after paying the subscription. Major Patent Offices such as the United States Patent and Trademark Office's (USPTO), European Patent Office (EPO), Japan Patent Office (JPO), etc. are maintaining in-house NPL databases to make patents examination more effective.

2.Choice of Application to be Filed - Once a decision has been made to patent the invention, the next step is, what kind of application needs to be filed i.e. provisional patent application or complete (Final) patent application - generally, the provisional patent application is preferred for the following reasons:

It is cheaper, takes less time, and involves fewer formalities.

Any improvements made in the invention after the filing of the provisional application can be included in the final application. In other words, the provisional application does not require complete specifications of the inventions. The application can be filed even though some data is yet to be collected from pending experiments.

A provisional application allows you to secure a priority date for the patent applied.

However, it is mandatory to file the complete patent application within one year of the filing of the provisional application; otherwise, the application stands rejected.

3. Patent Application Forms:

As per the Patent Act, 1970 (Section 39) and the Patents Rules, 2003 (Rule 7, 54, 135 and subrule (1) of rule 20, the application for the grant of patent is filed using Form-1 and Form-2.

The information sought in Form-1 is general in nature i.e. Title of Application, Names of Applicant(s) and Inventor(s), Type of Application (Ordinary, Convention, PCT-NP (PCT- National Phase), Divisional, Patent of Addition, etc.).

Whereas Form-2 seeks technical information and whether to file the provisional application or complete the application.

For 'Provisional Application', only 'Description of the Invention' and the 'Abstract' is to be furnished. Whereas, 'Complete Application' requires 'Description of the Invention', 'Abstract', 'Claims' and the manner in which invention has to be performed.

The ‘**Claims**’ of the patent are a very crucial part of the specifications because they define the actual boundary of the invention.

‘Claims’ specify what is actually claimed by the invention and what is being sought to be protected. It clearly describes what the patent does and does not cover.

The Claims are usually expressed as a declaration of technical particulars articulated in legal terms.

Claims can be classified into two types

- a) Independent Claims (stand alone claim) and
- b) Dependent Claims (dependent on independent claim).

The Claims must be drafted precisely and carefully in order to seek patent protection and also to protect the invention against potential infringers.

4. Jurisdiction of Filing Patent Application

India has four offices for filing patent applications(Refer the following table).

The applications can be filed only in one of the offices based on the applicant’s residence or domicile or place of business or origin of the invention. These are termed as jurisdictions to file patents.

Region/Office	Territorial Jurisdiction
West Region : Patent Office Branch, Mumbai	The States of Maharashtra, Gujarat, Madhya Pradesh, Goa and Chhattisgarh and the Union and the Territories of Daman and Diu & Dadra and Nagar Haveli
South Region : Patent Office Branch, Chennai	The States of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Telangana and the Union and the Territories of Pondicherry and Lakshadweep
North Region : Patent Office Branch, New Delhi	The States of Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttar Pradesh, Utarakhand, Delhi and the Union Territory of Chandigarh, Jammu and Kashmir and Ladakh.
Patent Office,Kolkata	The rest of India.

For a foreign applicant, the address for service in India or place of business of his patent agent determines the appropriate Patent Office for filing a patent application.

In the case of joint applications, all the applicants are bestowed with equal rights and consideration.

5. Publication:

Once the patent application has been filed at the Regional Patent Office, the patent application is kept secret for 18 months in the Patent Office.

After the expiry of 18 months (from the date of filing of the application or the priority claimed date, whichever is earlier), the application is published in the Official Journal of Patent Office (<http://www.ipindia.nic.in/journalpatents.htm>).

The purpose of publishing the application is to inform the public about the invention. The publication of an application is a mandatory step.

6. Pre-grant Opposition:

If anybody has an objection to the invention claimed in the patent application, he can challenge the application by approaching the Controller of Patents within 6 months from the date of publication. It is termed as Pre-grant Opposition.

Depending on the outcome of the case, the patent application may be rejected or recommended for the next step, i.e. patent examination.

Although the patent application is kept secret for 18 months, under special circumstances, this period can be reduced when the patentee(A person/Organization who owns the patent (granted))/applicant plans to sell or license the patent or seek an investor.

For this, the applicant has to fill a Form-9 and submit it to the Controller General.

7. Examination:

Patent examination is a critical step in the process of grant of a patent. All the important criteria (novel, inventive step, etc.) are scrutinized by the professionals depending on the content of the invention.

Usually, the examiner raises certain queries/doubts which need to be addressed by the inventors. Once the examiner is satisfied with the answers received from the inventors, the application is recommended for the grant of a patent.

It is pertinent to mention that a patent application is not examined automatically after clearing the publication stage.

The applicant or his representative has to make a request for examination of the patent by filing Form-18A and submitting the same within 48 months from the date of filing of the application.

8. Grant of a Patent:

After fulfilling all the requirements for the grant of a patent, including all objections/queries raised by the 'Patent Examiner' and the public at large, the patent is granted to the applicant.

The granted patent is published in the Official Journal of the Patent Office.

This journal is published every Friday and contains information related to patent applications published under section (u/s) 11A, post-grant publication, restoration of patent, notifications, list of non-working patents and public notices issued by the Patent Office.

9. Validity of Patent Protection:

The patent protection is granted to an applicant for a limited period, generally 20 years, starting from the date of filing of the application.

Once a patent is granted for an invention in India, the next vital step is to ensure that it is renewed annually by paying Patent Renewal Fee as per Section 53, Rule 80 of the Indian Patents Act, till the expiry of the patent grant period. Non-payment of Patent Renewal Fee might result in the cancellation of the patent.

In some countries, patent protection may be extended beyond 20 years. The extension aims to compensate for the time expended on the administrative approval procedure before products can be put on the market.

The time taken for this procedure means that the patent owner may sometimes not be able to benefit from his right for a considerable period after the grant of the patent.

10. Post-grant Opposition : Once the patent has been granted by the Patent Office, it still can be challenged by anyone within one year from the date of publication of the grant of the patent. The granted patent can be challenged either via a Patent Office or

in a Court of Law. These bodies may invalidate or revoke a patent upon a successful challenge by the interested party on the grounds mentioned below :

The applicant for the patent wrongfully obtained the invention or any part of the invention.

The invention claimed has been published before the priority date.

The invention claimed was publicly known/used before the priority date.

The invention claimed is obvious and does not involve an inventive step.

The subject of the claim is not patentable as per Chapter II of the Patent Act, 1970.

The details/specifications of the invention do not sufficiently and clearly describe the invention.

3.18 Commercialization of a Patent :

The patent owner may grant permission to an individual/organization/industry to make, use, and sell his patented invention. This takes place according to agreed terms and conditions between the involving parties.

A patent owner may grant a license to a third party for the reasons mentioned below:

- The patent owner has a decent job (e.g., university professor) and has no desire or aptitude to exploit the patent on his own.
- The patent owner may not have the necessary manufacturing facilities.
- The manufacturing facility is not able to meet the market demand.
- The patent owner wishes to concentrate on one geographic market; for other geographical markets, he may choose to license the patent rights.

Once the patent is granted, the patentee (person holding the rights to the patent) enjoys the exclusive rights to use the patented invention.

Only the patentee has the right to license or deal with the patent for any deliberations. Although the validity of the granted patent is for 20 years (from the date of filing a patent application), the patentee is required to furnish information (Form-27) annually relating to the commercialization/selling of the patent. It is called as 'Working/Licensing of the Patent'.

The licensing of a patent can be exclusive or non-exclusive.

In an **Exclusive Licence**, the patent is sold to only one individual/organization for a fixed time period. During this time period, no other person or entity can exploit the relevant IP except the named licensee.

In a **Non-Exclusive Licence**, a patentee can sell his patent rights to as many individuals/parties as he likes.

If the patentee is not able to commercialize his patent within three years from the date of the grant of a patent, any person may submit an application to the Controller of Patents for the grant of **Compulsory Licensing** (of the patent), subject to the fulfillment of the following conditions:

- Reasonable requirements of the public concerning the patented invention have not been satisfied.
- The patented invention is not available to the public at a reasonable price.
- The patented invention is not worked in the territory of India.

3.19 Need for a Patent Attorney/Agent

In general, applicants can prepare their patent applications and file them without assistance from a patent attorney.

However, given the complexity of patent documents, it is advisable to seek legal assistance from a patent attorney/agent when drafting a patent application.

Furthermore, the legislation of many countries requires that an applicant, whose ordinary residence or principal place of business is outside the country, be represented by an attorney or agent qualified in the country (which usually means an agent or attorney who resides and practices in that country).

3.20 Can a Worldwide Patent be Obtained

There is no such term as ‘Universal Patent’ or ‘World Patent’ or ‘International Patent’ as the patent rights are territorial.

An application for a patent must be filed with a Patent Office of the country in which one wishes to seek patent protection. Unfortunately, this option becomes laborious, cumbersome, timeconsuming and expensive if one wishes to file a patent application in many countries.

To ease out this issue, many Regional Offices have been established which receive patent applications on behalf of a group of nations e.g. European Patent Office and African Regional Intellectual Property Organization.

A single application is sufficient to cover many nations that are members of a particular regional office/organization.

However, if one wishes to seek patent protection in several countries worldwide, it is preferred to file an international patent under the Patent Cooperation Treaty (PCT).

The only condition is that the applicant's country should be a member of PCT. India, along with over 190 nations, is a member of PCT.

3.21 Do I Need First to File a Patent in India

Yes, in general, Indian residents are required to file the patent application first in India. Subsequently, they may file for patent protection in other countries. However, prior approval is needed from the Patent Office. This approval can be waived off under the following circumstances:

The applicant is not an Indian resident.

If 6 weeks have expired since the patent application was filed in India by an Indian resident.

If two or more inventors are working on an invention in a foreign country and one of the inventors is an Indian resident. The invention does not have a potential market in India, and hence the Indian resident seeks Foreign Filing Permission (FFP) from an Indian Patent Office.

In case of international collaboration, if one part of the invention originated in India and the inventor is an Indian resident, he has to seek permission to file the patent outside India.

If the invention is related to defense or atomic energy or utility model, the inventor(s) need to seek permission from the Indian Patent Office because inventions related to these domains are not the subject matter of patentability in India.

3.22 Patent Related Forms :

There are over 30 patent-related forms. Some of Important Patent Application Forms are mentioned below.

Form No.	Title of Form
1	Application for a grant of a patent
2	Provisional/Complete specifications
7	Notice of opposition on grant of a patent
7A	For filing a representation opposing grant of a patent
17	Application for compulsory license
18	Request for examination of the application for patent
21	Request for termination of compulsory license
22	Application for registration of patent agent
27	Statement regarding the working of the patented invention on a commercial scale in India
30	Miscellaneous form to be used when no other form is prescribed

3.23 Fee Structure

As per the Patent Act, 1970, and The Patents Rules (1972), the requisite fee has been specified based on the type of form/s to be submitted to the Office (See the Table). Electronically filed applications are 10% cheaper than physical filing.

Item	Natural Person/Startup (Rupees)	Small Entity Alone or with Natural Person/Startup (Rupees)	Others Alone or with Natural Person/Startup/Small Entity (Rupees)
Provisional/Complete Specifications	1,600	4,000	8,000
Request for Early Publication	2,500	6,250	12,500
Request for Examination	4,000	10,000	20,000
Express Request for Examination	5,600	14,000	28,000
Renewal Fees (Annually)			
3rd to 6th Year	800	2,000	4,000
6th to 10th Year	2,400	6,000	12,000
11th to 15th Year	4,800	12,000	24,000
16th to 20th Year	8,000	20,000	40,000

3.24 Types of Patent Applications:

Provisional Application - A patent application filed when the invention is not fully finalized and some part of the invention is still under experimentation. Such type of application helps to obtain the priority date for the invention.

Ordinary Application - A patent application filed with complete specifications and claims but without claiming any priority date.

PCT Application - An international application filed in accordance with PCT. A single application can be filed to seek patent protection and claim priority in all the member countries of PCT.

Divisional Application - When an application claims more than one invention, the applicant on his own or to meet the official objection on the ground of plurality may divide the application and file two or more applications. This application divided out of the parent one is known as a Divisional Application. The priority date for all the divisional applications will be the same as that of the main (the Parent) Application (Ante-dating).

Patent of Addition Application - When an invention is a slight modification of the earlier invention for which the patentee has already applied for or has obtained a patent, the applicant can go for 'Patent of Addition', if the modification in the invention is new. Benefit - There is no need to pay a separate renewal fee for the 'Patent of Addition', during the term of the main patent. It expires along with the main patent.

Convention Application - If a patent application has been filed in the Indian Patent Office, and the applicant wishes to file the same invention in the one or more Convention countries (e.g., Paris Convention) by claiming the same priority date on which the application was filed in India, such an application is known as Convention Application. The applicant has to file Convention Application within 12 months from the date of filing in India to claim the same priority date.

3.25 Commonly Used Terms in Patenting

There are certain terms that are commonly used in the field of patenting, as listed in following table.

Sl. No.	Term	Definition
1	Inventor	Creator of an invention
2	Applicant	Organization/individual/industry that files a patent application or applies for a patent
3	Patentee	A person/organization who owns the patent (granted)
4	Licensee	Organization/individual/industry which obtains a license of the patent from the Patentee for commercialization purpose
5	Assignee	A person in whose name patent has been assigned legally
6	In force	The applicant is paying the annuity (renewal fee) for the patent to keep it alive (Active Patent)
7	Working of a Patent	The selling of a patent to an individual/party for commercial exploitation is called the working of a patent
8	Patent Specification	Written description of the invention and the way of representation and process of making and using the same

9	Priority Right	A time-limited right, activated by the first filing of an application for a patent
10	Priority Date	The claimed date on which the first application for the invention is filed
11	Patent Claims	The scope of the protection conferred by a patent, or the protection sought in a patent application. The purpose of the claims is to define which subject matter is protected by the patent
12	National Phase Application	An application filed to obtain patents in different countries simultaneously based on a single International/PCT application
13	Patent Revocation	Cancellation of the patent due to certain reasons, such as lack of patentability or wrongfully obtaining a patent
14	Restoration of Patent	Once a patent has ceased (e.g., due to non-payment of the fee), it can be restored within a permitted period by paying the requisite fee

3.26 National Bodies Dealing with Patent Affairs:

There are many departments/organizations/bodies dealing with various aspects of patents, namely:

1. **The Indian Patent Office (IPO):** The Office of the Controller General of Patents, Designs and Trade Marks generally known as the Indian Patent Office, is an agency under the Department for Promotion of Industry and Internal Trade which administers the Indian law of Patents, Designs and Trade Marks.
2. **Department for Promotion for Industry and Internal Trade (DPIIT):** DPIIT, earlier known as the Department of Industrial Policy and Promotion (DIPP), under the Ministry of Commerce and Industry, Govt. of India, is the apex IP body. It came into existence in 1995 and is the main body for regulating and administering the industrial sector.

3. Technology Information, Forecasting and Assessment Council (TIFAC)

: The importance of undertaking technology forecasting and assessment studies on a systematic and continuing basis was highlighted in the Government of India's Technology Policy Statement (TPS) of 1983. Therefore in 1985, TIFAC was established as an autonomous body, registered as a Society in 1988, under the Department of Science and Technology. It is an important cog in filling a critical gap in the overall Science and Technology system of India. Its mission is to assess the state-of-art of technologies and set directions for future technological developments in India in important socio-economic sectors.

- 4. National Research Development Corporation (NRDC):** NRDC, an enterprise of Department of Scientific & Industrial Research (DSIR), Govt. of India, was set up in 1953 with a mandate to develop, promote and transfer/commercialize IP and technologies emanating from Higher Education Institutes (HEIs), R&D research laboratories/institutions and Public Sector Undertakings (PSUs). NRDC has a repository of 2500 Indian technologies, filed over 1700 Patents and transferred about 5000 technologies in different sectors in India. It has also created a technology data bank (<http://fccollc.com/nrdclive/>) containing information regarding technologies available in various fields, such as electrical & electronics, mechanical, coal, mining, biotechnology, healthcare, leather, etc.

3.27 Utility Models:

In many cases, a new invention involves an incremental improvement over the existing products, but this technical improvement is not sufficient enough to pass the stringent criterion of 'Novelty' and 'Non-obviousness' set aside for the grant of a patent. Such small innovations can still be legally protected in some countries and termed as '**Utility Models**' or '**Petty Patents**' or '**Innovation Patents**'. In this case, the criterion of 'Novelty' and 'Non-obviousness' are diluted or relinquished. But the requirement of industrial application or utility is the same as that for patents.

Definition of Utility Models : Utility Models, also known as 'Petty Patents' or 'Innovation Patents,' represent a form of intellectual property protection for incremental improvements over existing products.

Differences from Patents: While patents demand a higher threshold for 'Novelty'

and 'Non-obviousness,' Utility Models provide a more accessible option for smaller innovations. The industrial application or utility requirement remains consistent with patents.

Benefits for MSMEs : Utility Models serve as a valuable tool for Micro, Small, and Medium Enterprises (MSMEs), offering a less rigorous and cost-effective alternative to patents. This is particularly beneficial for MSMEs with limited resources for intensive research and development.

Duration and Global Recognition : The lifespan of a Utility Model is typically shorter than patents, varying from 7-15 years in different countries. Approximately 80 countries, including France, Germany, Japan, South Korea, China, Finland, Russian Federation, and Spain, recognize and provide protection for Utility Models under their Intellectual Property Rights (IPR) laws.

Current Status in India: As of now, India does not officially recognize utility patents. The inclusion of utility patents in India's IP protection framework could significantly impact the annual number of filed and granted patents.

Additional Information

The patent system in India is governed by the *Patents Act, 1970* (No.39 of 1970) as amended by the *Patents (Amendment) Act 2005* and the *Patents Rules, 2003*. The Patent Rules are regularly amended in accordance with the changing environment, with the most recent update in 2020.

Historical Note : The first patent filed in India dates back to *3rd March 1856*. George Alfred DePenning, a civil engineer and inventor from Calcutta, India, submitted the first petition for the grant of Exclusive Privileges (a term used for patents at that time) for his invention called '*An Efficient Punkah-Pulling Machine*'. This patent marked the inception of the patenting tradition in India.

Budapest Treaty (1977): According to the Budapest Treaty (1977), microorganisms involved in the patent disclosure procedure must be deposited with units of the International Depositary Authority (IDA).

Impactful Patents: Edison's Electric Bulb (1880) Patent Number: *US 223 898*

The Telephone (1876): Patent Number: *US 174 465*

The first telephone was invented and patented by Alexander Graham Bell in 1876. Bell went on to co-found the American Telephone & Telegraph Company (AT&T), which later expanded to control all telecommunications and became the world's most significant industry.

Most Patents Granted : Japanese inventor Shunpei Yamazaki holds the record for the maximum number of patents (9700) granted in a span of 49 years (1972-December 2020) at an impressive rate of 196 patents per year.

Most Patents Granted to a Person of Indian Origin : Gurtej Sandhu holds the record for the maximum number of patents (1299) granted to a person of Indian origin in a span of 30 years (1991-December 2020) at the rate of 43 patents per year.

Question Bank

1. How does Intellectual Property (IP) play a crucial role in the economic and cultural development of society. (or) Describe the role of Intellectual Property in the economic and cultural development of a society
2. Examine and elucidate the roles played by national agencies and international organizations in the governance of intellectual property (IP).
3. What is the role of national agencies and international organizations in governing and regulating intellectual property (IP) matters?
4. Analyze the origin of IP and the major amendments in IP laws and acts in India.
5. Discuss the historical evolution of intellectual property (IP) in India.
6. Analyze the notable amendments made to intellectual property (IP) laws and acts in India, considering key changes, legislative developments, and their implications across different IP domains.
7. Discuss the categories of non-patentable matters (or) What types of inventions are not patentable in India?
8. What are the criteria of patentability?

9. Describe what types of inventions are eligible for patenting and which ones are not. Support your answer with examples.
10. Elaborate on the steps and requirements involved in the patenting process in India.
11. Explain the meaning of 'Prior Art Search' and emphasize its significance in the process of patenting. Also, provide an outline of how to conduct it.
12. Discuss the difference between Pre-grant Opposition and Post-grant Opposition in the context of patenting. How do they serve to maintain the validity of patent protection?
13. Can one obtain a worldwide patent or first need to file a patent in India? Discuss with all the procedures involved.
14. Explain the commonly used terms in the field of patenting.
15. Discuss the process of patenting an invention and the conditions for obtaining a patent.
16. What are the rights associated with patents and how can they be enforced? (or) Discuss the rights given to patent holders and outline the methods used for enforcing these rights.
17. What are the different types of Patent Applications? Illustrate with examples.
18. Describe the types of patent applications and the need for a patent attorney or agent in the process of patenting.
19. Explore the concept of Patent Infringements and the measures to avoid them.
20. Explain the effect of public disclosure of an invention before patenting and the significance of choosing the proper jurisdiction for filing a patent application.
21. Discuss the concept and importance of Utility models in contrast to patents. What economic and innovation-driven implications does each carry?
22. Why is the choice of application crucial in the patenting process and how does it influence the jurisdiction of filing a Patent Application?
23. Evaluate the evolution of copyright laws in India with a focus on the amendments made in the digital age. How have these changes addressed emerging challenges?
24. Compare and contrast the evolution of trademark laws in India before and after the Trade Marks Act of 1999. Highlight the major changes and their implications.

25. Trace the evolution of plant varieties protection in India from the exclusion under the Indian Patents Act, 1970, to the enactment of the Protection of Plant Varieties and Farmers' Rights Act, 2001.
26. Analyze the role of the National Biodiversity Action Plan, 2009, in biodiversity conservation in India. Highlight key provisions and their implications.
27. Explain the amendments made to the Indian Patents Act in 2005 and their significance in the context of global Intellectual Property standards.
28. Discuss the decision-making process an inventor goes through when determining whether to patent an invention or place it in the public domain, emphasizing the factors that influence this choice
29. Discuss the process of commercialization of a patent, highlighting how a patent owner can grant permission to individuals or organizations to make, use, and sell the patented invention
30. Explore the concept of exclusive and non-exclusive licenses in the context of patent commercialization, providing examples of each and discussing their implications.
31. Examine the role and importance of a patent attorney/agent in the process of drafting and filing patent applications?
32. Evaluate the concept of a 'Worldwide Patent' and discuss why patent rights are considered territorial.
33. Can a worldwide patent be obtained? Explain. (or) Can a worldwide patent be obtained? Explain the process, benefits and drawbacks of obtaining a worldwide patent.
34. What is the pre-grant and post-grant opposition in patent law, and how do they differ?
35. Discuss the general requirement for Indian residents to first file a patent application in India before seeking protection in other countries
36. What is the significance of utility models in patent law? Discuss some commonly used terms in patenting.
37. Discuss the concept of Patent Infringements and demonstrate how public disclosure of an invention before patenting can lead to it.

38. Describe what types of inventions are eligible for patenting and which ones are not. Support your answer with examples.
39. Explain the meaning of 'Prior Art Search' and emphasize its significance in the process of patenting. Also, provide an outline of how to conduct it.
40. What role does a Patent Attorney/Agent play in the patenting process?
41. Explain the role of intellectual property in both economic and cultural development within a society.
42. Discuss the historical origin and evolution of intellectual property in India.
43. Explain the essential conditions that an invention must fulfill to obtain patent protection.
44. Outline the step-by-step process of patenting an invention, from prior art search to publication and grant.