

# Science and Technology Class 15

19th September, 2023 at 9:00 AM

## INTELLECTUAL PROPERTY (09:07 AM)

- It is the legal right granted to individuals or entities for their intellectual creations or innovations.
- These rights provide exclusive control over intangible assets allowing creators and inventors to benefit from their work and prevent others from unauthorised exploitation.
- By granting IPR, society aims to encourage innovation, creativity, and investment in R&D which can simulate economic growth and foster competition.
- They are granted for a finite duration to have a balance between public interests and rights and facilitate competition.
- In India, IPR is administered by the Dept. for the Promotion of Industry and Internal Trade under the Min. of Commerce and Industry.
- **Types of IPRs**
- **Patent**
- It is given for a new invention or a new process that has to fulfil **three criteria-**
- **Novelty-** It should not have been known or used by others before patent filing, Non
- **obviousness-** It must involve an inventive step that would not be obvious to someone with ordinary skills in the relevant field.
- **Industrial use-** It must have a practical application (being made or used in an industry)
- It is given for 20 years and once it expires, the knowledge enters the public domain allowing others to use it.
- E.g. Generic medicines
- In India, it is governed by the **Patent Act, 1970**
- **Copyright**
- It provides protection to literary, artistic, musical and dramatic work for original work.
- it is given to creators and the duration is life + 60 years in the case of films, and for sound recordings, it is given to producers and the protection is 60 years from the date of publication.
- In India, governed by the Copyright Act of 1957.
- **Trademark**
- It is a mark capable of being represented graphically distinguishing the goods or services of one from another.
- It can be a sign, word, letter, number, drawing, picture, or combination of colours among others.
- In India, it is governed by the **Trademarks Act 1999**.
- The period of registration is for 10 years but can be renewed indefinitely.
- **Industrial design**
- Design means, the shape, configuration, and composition of colours applied to an article in 2D or 3D which contains some aesthetic value.
- As per the Designs Act 2000, the protection is given for 10 years which can be extended by five years.

- **TRADE SECRETS (10:10 AM)**

- These are confidential business information that provides an enterprise with a competitive edge.
- It can be an invention, survey method, financial strategy, recipe, etc.
- It can be preferred over patents in the following cases-
- When information is not patentable.
- Patent protection is limited to 40 years.
- The secret can be kept beyond that period.
- When it is difficult to reverse engineer.
- Since they are protected without registration, theoretically, the protection is for unlimited time.
- India does not have a dedicated law however trade secrets can be protected under the **Indian Contract Act of 1872**.
- Geographical Indicator- It is an indication that identifies agricultural, natural, or manufactured goods originating in a particular territory where a specific quality is attributable.
- In India, it is governed by the geographical indicators of goods (Registration Protection Act 1919).
- It is given for 10 years and can be renewed indefinitely.
- **Plant variety protection**
- It grants the right to breeders of a new plant variety allowing them to control the production, sale and distribution.
- In India, it is governed by the Protection of Plant Varieties and Farmers Rights Act 2001.
- The Act recognises the rights of farmers who have developed and conserved traditional varieties over time.
- The period of protection is 15 years for annual crops and 18 years for trees.
- **Integrated circuit layout design**
- Original and novel designs of Semiconductor integrated circuits can get protection for 10 years.
- In India, it is governed by the **Semiconductor Integrated Circuit Layout Design Act 2001**.

### **TRIPS AGREEMENT (10.55 AM)**

- It is an agreement administered under WTO that sets minimum standards for intellectual property protection and enforcement among its member nations.
- It provides flexibility to developing nations to accumulate IPR and developmental necessities.
- For example, Compulsory licensing is part of the TRIPS agreement that allows the government to grant licenses to third parties to produce a patented invention without the consent of the patent holder.
- It is used in specific cases such as public health emergencies or affordable access to medicines.
- Section 84 of the Indian Patents Act provides for compulsory licenses.
- In case of conflicts, TRIPS also provides legal remedies for member nations.

### **WIPO (11:11 am)**

- It is an **agency of the UN** that aims to protect intellectual activity across the world.
- It also aims to transfer technology from developed to developing nations.
- It administers many treaties. Some **important conventions and Treaties** are:
- **Paris Convention 1883** for the protection of intellectual property such as industrial design.
- **Berne Convention 1886** - Protects literary and Artistic works.
- **Marrakesh treaty**
- Creates an exception to domestic copyright law work which has to be translated for the visually impaired, and does not require permission from the copyright holder.
- India was the first country to sign and ratify this treaty.
- WIPO also publishes the **Global Innovation Index** in collaboration with other institutes.
- It is an annual report. It measures the innovation performance of countries based on various parameters.
- In the 2023 report, India was ranked in the 40th position.
- USTR publishes **Special 301 report**.

### **EVERGREENING OF PATENTS (11:20 AM)**

- It is a practice often adopted by Pharma companies where they file for re patent before the expiry of the patented product by doing some minor modifications to their medicine and re-patent it by claiming novelty.
- **Section 3(d) of the Indian Patent Act** does not allow evergreening e.g. in 2013, the patent of the medicine Glivec by Novartis got cancelled.
- recently patent of medicine Bedaquiline an Anti TB drug made by Jhonson and Jhonson was rejected on this ground in India.
- **Patent Waiver**
- It refers to temporary or permanent relaxation of intellectual property rights in order to allow for widespread production, distribution and affordability, particularly in times of public health emergencies.
- In the wake of the Covid-19 Pandemic Countries such as India and South Africa demanded patent waivers for vaccines.

## PROTECTION OF TRADITIONAL KNOWLEDGE (11:38 AM)

- **Traditional Knowledge Digital Library-** It is maintained by the Ministry of Ayush.
- India is a civilizational nation with traditional knowledge that spans many fields.
- **Traditional knowledge** can be defined as innovations and practices of local communities around the world developed from experiences and adapted to local culture and environment. For example in the fields of agriculture, fisheries, water conservation, environmental management and healthcare traditional knowledge plays a very important role.
- Traditional Medicine can be defined as knowledge, skills, and practices based on theories and beliefs, indigenous to different cultures for the prevention, management diagnosis, or treatment of physical and mental illness.
- India has a rich traditional medicine system in the form of:
  - A - Ayurveda
  - Y - Yoga
  - U - Unani
  - S - Siddha
  - H - Homeopathy
  - Sowa Rigpa
  - Naturopathy
- In past, MNCs have tried to misappropriate India's civilisational knowledge as their own and filed patents for it. **For ex-** In the US, a patent was granted for wound healing properties of turmeric. In Europe, a patent was granted for the fungal properties of Neem.
- In both cases, India fought a successful legal battle and a need was felt for the protection of rational knowledge.
- This led to the establishment of the **Traditional Knowledge Digital Library (TKDL).**
- It is a digital database of medicinal formulations as part of India's traditional knowledge available in international languages- English, French, German, Spanish, and Japanese.
- As per the TKDL agreement, this database is available at Global patent offices to check the validity of a claim.
- Hundreds of patents have been rejected or modified because of TKDL without fighting legal battles.
- Access to TKDL is given at Global Patent offices as part of the TKDL access agreement.
- It has a built-in Non-Disclosure mechanism thus patent examiners can use this database to check the validity of a patent.

## TOPIC OF THE NEXT CLASS- ROBOTICS