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Course No :- BOT - 353. (IPR).

Q 1. What is Intellectual property & describe in detail about GATT, WTO, TRIP, WIPO.

Ans - Intellectual property

Intellectual property means the property represented by the product emanating from creativity of the human mind, human intellect & creative ideas.

It can be an invention, original design, practical application of a new idea, artistic creation, etc.

\* GATT (General Agreement on Tariffs & Trade).

- GATT was signed in 1947, and came into force on 1 January 1948 signed by 23 States.
- It was amended in 1966 & lasted until 1993 when it was replaced by WTO (World Trade Organisation) in 1995.
- It is one of the important agencies of the United Nations, which provides better and wider protection for the patent holders of the developed nations.

than the Paris convention.

- GATT was the outcome of the failure of negotiating governments to create the International Trade Organisation (ITO).
- The purpose of GATT was explained as the substantial reduction of tariffs and other trade barriers and the elimination of preferences on a reciprocal and mutually advantageous basis.
- Under the GATT, 8 Rounds of negotiations took place to liberalize world trade.
- The first round began in 1947 & ended on 15 December 1948.

#### \* WTO (World Trade Organisation)

- WTO is the successor organization to the General Agreement on Tariffs & Trade (GATT).
- In 1995 WTO was established, which replaced the GATT. There were 3 Rounds under WTO.
  1. Seattle Round (1999)
  2. Doha Round (2001)
  3. Cancun Round (2003)
- WTO intends to supervise & liberalise international trade and officially commenced on 1 January 1995.
- It had 157 members of which 117 are developing countries.

- The headquarters of WTO is at Geneva, Switzerland.
- Its activities are supported by a secretariat of 700 staffs, led by the WTO Director General.
- There are 3 official languages of WTO -
  - i) English
  - ii) French
  - iii) Spanish.

### Benefits of WTO

- \* System helps in promoting peace.
- \* Helps in dispute settlement.
- \* Makes rules that make life easier.
- \* Conducts free trade that cuts the costs of living.
- \* Provides more choice of products & qualities.
- \* Income that is due is raised.
- \* System encourage good government.

### Activities of WTO

- Negotiation to reduce or eradicate hindrances in trade and agreeing on rules that govern the conduct of international trade.
- Educating public about WTO, its mission and its activities.
- conducting economic research.
- co-operating with other international organization.
- Assisting the accession of 20 non-member countries.



## \* WTO Treaties

1. GATT - General Agreement on Tariffs & Trade.
2. GATS - General Agreement on Trade & Services.
3. TBT - Agreement on Technical Barriers to Trade.
4. AGP - Agreement on Government Procurement.
5. SPS - Agreement on the application of sanitary and phytosanitary measures.
6. TRIMS - Agreement on trade-related investment measures.
7. TRIPS - Agreement on Trade-Related Aspects of Intellectual Property Rights.
8. Agreement on Agriculture.

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## \* TRIP (Trade-Related Aspects of Intellectual Property Rights)

- The TRIPS agreement came into effect on 1 January 1995.
- It provides standards for the full range of intellectual property rights & also the enforcement of those standards both internally & through legal and administrative actions.
- The general timetable for implementing the TRIPS agreements is 1 year for industrialised countries, 5 years for developing countries and countries shifting from centrally planned economics, 10 years for least developed countries.

\* The Agreement covers 5 broad issues.

1. Application of basic principles of the trading system and other International Intellectual Property Programme.
2. Methods used for the adequate protection of Intellectual Property Rights.
3. Enforcements of those rights sufficiently and adequately in their own territories.
4. setting of disputes on Intellectual Property rights between members of the WTO.
5. special transitional arrangements during the period when the new system is being introduced.

\* The TRIPS Agreement has 3 basic features. \*

1. standards :- The agreement sets out the minimum standards of protection that has to be provided by each members of country.
2. Enforcement :- It deals with the internal methods or procedures for the enforcement of IPR.

### 3. Dispute settlement

The agreement makes disputes between WTO members in respect of TRIPS obligations subject to the WTO's dispute settlement procedures.

### \* Basic Principle of TRIPS \*

1. It makes it compulsory for the member countries to provide Patents.
  2. It mandates patenting of 'micro-organisms', microbiological & non-biological processes.
  3. The members are allowed to make only limited exclusions from patentability.
  4. It also gives option to the states for protecting new plant varieties through patents or through the effective sw genesis system.
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### \* WIPO (World Intellectual Property Organisation)

- WIPO is a specialized agency of the United Nations which is dedicated to ensuring that the rights of creators and owners of intellectual property are protected worldwide.
- It is responsible for the administration of various multilateral treaties dealing with the legal and administrative aspects of intellectual property.
- It was the first major international treaty formed to help the inventors of one country to obtain protection in other countries for their creation or invention.

Q3. Define IPR & write in detail about its types.

Ans:- IPR (Intellectual Property Rights)

Intellectual property rights refers to the general term for the assignment of property rights through patents, copyrights & trademarks.

### Types of IPR

Intellectual Property Rights can be broadly divided into two categories:

#### A] Industrial property

- i] Patents
- ii] Designs
- iii] Trademarks
- iv] Geographical Indications
- v] Integrated circuits, vi] Trade secrets.

#### B] Copyright.

A] Industrial property :- Industrial property mainly consists of patents, designs, and trade marks. Patent are granted for inventions, design for creations determining the appearance of industrial products, Trademarks are issue for identification of the manufacturer or vendor of the product, whereas copyright



relates to artistic and literary creation such as poem, novel, painting, computer software etc.

Legislations on Intellectual Property Rights.

The provisions for grant of these Intellectual Property Rights in India have been formulated from time to time. At present the following legislations on Intellectual Property Rights are in force in India.

1. The Patents Act, 1970 as amended by, The Patents Act 2005 along with The Patents Rules 2005.
2. The Design Act 2000 Along with the Design Rules, 2001.
3. Trade Act 1999 with Trade marks Rules, 2002.
4. The Geographical Indications of goods Act, 1999 along with The Geographical Indications of goods Rules 2002.



### \* WIPO seeks to

- Provide services for international application for Industrial Property rights.
- Exchange intellectual property information among member countries.
- provide legal & technical assistance to developing and other countries.
- Resolve the private disputes on Intellectual property and harmonizes the Intellectual property law and procedures.
- WIPO was established by the convention in 14 July 1967, which entered into force in 1970.
- WIPO undertakes development cooperation for developing countries through advice, training and furnishing of document.
- A similar agreement on cooperation between WIPO & WTO came into force on 1 Jan 1996.
- WIPO has promoted the interaction among different stakeholders at the national level to include, eg - agriculture, health, science & technology etc.

Q2. Write down treaties for IPR protection, ..  
Budapest, Berne convention, Madrid protocol.

\* Budapest Treaty \*

Budapest Treaty on the International Recognition of the Deposit of microorganisms for the purpose of patent procedure done at Budapest on April 28, 1977. and amended on September 26, 1980.

\* Berne convention \*

Berne convention for the protection of Literary and Artistic works.

\* Madrid Protocol \*

The Madrid Agreement and Protocol are open to any state party to the Paris convention to any state party to the Paris convention for the protection of Industrial Property (1883).

## i]. Patents

Patent is an exclusive right granted by the Government to the application for his disclosed invention of Industrial product or process which should be new, non-obvious, useful and patentable as per the patentability criteria laid down in the national law. A patent offers technical solution to a technical problem. Government provides legal protection for a limited on his invention.

## ii] Designs

- Designs means only the features of shape, configuration, pattern, ornament, composition of colours or line or combination thereof.
- It must be applied to any article, whether two dimensional or three dimensional or in both forms, by any industrial process or means, which in the finished article appeal to and are judged solely by the eye.

## Benefits of Design

- Registration of a design confers upon the registered proprietor the exclusive right to apply a design to the article in a class in which the design has been registered.
- Industrial designs are of great commercial value because shape or configuration of the article can often be a great selling point.

### iii) Trade Marks

- A trade mark is a visual symbol in the form of word, name, logo, label, etc.
- Trademarks indicate origin of manufacture or service or vendor in that respect and enable customers to distinguish the product.
- of one manufacturer from the goods of the other.
- When properly advertised, the trade mark becomes an effective instrument to attract the customers and acquire goodwill of the customer.
- A trade mark, through its widespread and extensive use in public, becomes popular and eventually results in acquiring an exclusive right, which can be legally enforced by the owner of the mark.
- Trademark helps the consumer to answer the question, "who makes the product or who has provided the service?" eg- Coca Cola, Sony, TVs, Bajaj, etc.

### Non- Registrable Trademark

- \* TM should not belong to the class of marks prohibited by law eg- Emblem of India as per the Emblem and Names (Prevention of Improper use) Act, 1950.
- \* TM should not contain obscene matter and should not hurt religious or sacred feelings of any citizen.



#### iv) Geographical Indication

- It identifies agricultural, natural or manufactured goods, originating from a definite territory. It is an indication or appellation of the origin of a particular product.
- For the purpose of qualifying for geographical indication protection, the goods should have special qualities or characteristics or reputation based upon the climatic or production characteristics which are unique to the geographic location.  
eg- Darjeeling Tea, Basmati Rice, Nagpur orange, Paitan - Paitani, Nashik Grapes, etc.
- Goods means such goods as Agricultural, natural or manufactured goods, as originating or manufactured in the territory of a country or region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin.
- GI can be any name, geographical or figurative representation or combination of them, conveying or suggesting the geographical or figurative representation or combination of them, conveying or suggesting the geographical origin of goods to which it applies.
- Better known Asian Geographical Indications are - Basmati Rice, Jasmine Rice (Thailand), Thai silk, Dhaka muslin, Bhutan Red Rice, Ceylon Tea, etc.

## \* Benefits of Geographical Indication \*

- GI confers legal protection to geographical indications in India and prevents unauthorized use of a registered geographical indication by others.
- It boost exports of Indian geographical indication by providing legal protection.
- It promotes economic prosperity of producers of goods produced in geographical territory.

## 2] Copy Rights.

- copyright is protection that covers published and unpublished, literary, scientific and artistic copy-right relates to the exclusive right to do or authorize to a certain acts in relation to original literary, dramatic or musical work, artistic creations (paintings, photographs, work of architecture, artistic craftsmanship) cinematographic films, sound recording, software programme, etc.
- copyrights is not given for just an idea, but subsists only in the material form to which the ideas are translated or expressed.
- unauthorised copying or reproduction of the authors work amounts to infringement. But, a fair dealing with the work for private use i.e. study, research, review, criticism, etc. without an intention of commercial gain is not an infringement.

8.  
Q4. Patent Law & Act 1970 and explain in brief about patent Act.

Ans → The patent Act 1970, along with the Patents Rules 1972, came into force on 20th April 1972. Replacing the Indian Patents and designs Act 1911. The Patents Act was largely based on the recommendations of Ayyangar committee Report headed by Justice N. Rajagopala Ayyangar. One of the recommendations was the allowance of only process patents with regard to inventions relating to drugs, medicine, food and chemicals.

### History

- \* The patent Law of 1856
- \* The patent and designs Act, 1911.
- \* The patent Act, 1970 & Rules 1972.
- \* The patent amendment act 2005.

### What is a patent

A patent is a grant from the government which confers on the guarantee for a limited period of time the exclusive privilege of making, selling and using the invention for which a patent has been granted.



## Purpose of getting a Patent

- \* To enjoy the exclusive rights over the invention.
- \* The patent is to ensure commercial returns to the inventor for the time and money spent in generating a new product.

## Salient Features

1. Both product and process patent provided.
2. Term of patent - 20 years
3. Examination on request
4. Both pre-grant and post-grant opposition.
5. Fast track mechanism for disposal of appeals
6. Provision for protection of bio-diversity and traditional knowledge.
7. Publication of applications after 18 months with facility for early publication.
8. substantially reduced time - lines.

## Stages From Filing To Grant of A patent.

### Criteria for Patenting

- a) Novelty
- b) Inventive Step
- c) Capable of Industrial application.



### Novelty

The invention should not have been published in India or elsewhere.

The invention should not have been in prior public knowledge or public use in India.

### Inventive step

'Inventive step' means a feature of an invention that involves technical advancement 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.

capable of Industrial Application.

capable of industrial application, in relation to an invention means that the invention is capable of being made or used in an industry.

### Who can apply for a patent

1. Any person claiming to be the true and first inventor of the invention.
2. Any person being the assignee of the person claiming to be the true and first inventor in respect of the right to make such an application.

3. By the legal representative of any deceased person who immediately before his death was entitled to make such an application.

### patent office

Head office - Kolkata

Branch offices at

\* Mumbai

\* Delhi

\* Chennai

### Procedure For Filing to Grant of A patent

#### step 1. Obtaining A patent

→ File an application for patent.

i) With one of the patent offices based on territorial jurisdiction, of the place of office or residence of the application / agent.

ii) Pay the required fee.

iii) All information concerning fees / other details available at [www.ipindia.nic.in](http://www.ipindia.nic.in).

#### step :- 2. Formality check.

As Examiner checks the formal requirements before accepting the application and the fee - this is done immediately.

Issue of application number and the cash

receipt - this is done the same day.

In case of receipt of application by post, cash receipt, application number is sent by post within 2-3 days.

### step :- 3 Formality check

Application is kept secret for a period of 18 months from the date of filling.

- In 19th month, the application is published in the official journal - this journal is made available on the website weekly.
- Application has an option to get his application published before 18 months also.
- In that case, application is published within 10 month of the request.

### steps :- 4 Request For Examination

Application is examined on request. Request for examination can be made either by the applicant or by a third party.

A period of 48 months, from the date of filling, is available for making request for examination.

### step :- 5 Examination

Application is sent to an Examiner within 1 month from the date of request for

examination.

Examiner undertakes Examination, w.r.t.

- i) Whether the claimed invention is not prohibited for grant of Patent.
- ii) Whether the invention meets the criteria of patentability.

#### Step 6 :- Issue of FER.

- A period of 1 - 3 months is available to examiner to submit the report to the Controller.
- 1 months time available to Controller to assess the examiner's report.
- First examination Report (FER) containing list of the objections is issued within 6 months from the date of filing of request.

#### Step 7 :- Response from the applicant

- 12 months time, from the date of issue of FER, is available to the applicant to meet the objections.
- If objections are met, grant of patent is approved by the Controller - within a period of 1 month.



### Step 8 :- Pre - Grant Opposition.

- After Publication, an opposition can be filed within a period of 6 months.
- Opportunity of hearing the opponent is also available.

### Step 9 :- Examination of Pre-Grant Opposition.

- Opposition (documents) is sent to the applicant.
- A period of 3 months is allowed for receipt of response.

### Step 10 :- Consideration of Pre-Grant Opposition.

- After examining the opposition and the submissions made during the hearing, controller may.
  - Either reject the opposition & grant the patent.
  - Accept the opposition and modify / reject the patent application.
- This is to be done within a period of 1 month from the date of completion of opposition proceedings.

### Stage 11 :- Grant of A Patent

- A certificate of patent is issued within 7 days.

- Grant of Patent is published in the official journal.
- For a term of 20 years from the date of filling the patent application.

### Patent claims.

As claims in a patent define boundaries of the invention claimed, a product or process patent will be infringing if it falls within the scope of a claim in the patent.

### Types of patent claims.

Essentially, claims are of two types

- i) Independent claims.
- ii) Dependent claims.

### Independent claims.

They are 'stand alone' claims that do not bear reference to any other claim. It contains a preamble and all the elements necessary to define the invention.

The first claim is usually an independent claim that sets the tone for the protection claimed by the invention. Independent claims are usually broader as compared to the dependent claims so as to prevent potential

infringers from circumventing the independent claim in any which way.

Independent claims may be of three types

- A claim for a thing.
- A claim for a method of making a thing.
- A claim for a method of using a thing.

## 2. Dependent claims

Dependent claims always bear reference to an earlier claim or independent claim and limit their scope.

Dependent claims are therefore relatively narrow as they limit the scope of an earlier claim. Further, dependent claims refine the scope of protection sought for an invention.

Q.6 Discuss in detail about International Union for the protection of new varieties of plant (UPOV).

Ans => origin

The UPOV is an intergovernmental organisation with headquarters in Geneva, Switzerland. The current secretary - General of UPOV is Francis Gurray.

UPOV = Union for the protection of new varieties of plants (UPOV).

History

UPOV was established by the International Convention for the protection of new varieties of plants. The convention was adopted in Paris in 1961 & revised in 1972, 1978 and 1991.

The objective of the convention is the protection of new varieties of plants by an intellectual property right. UPOV aims to encourage the development of new varieties of plants for the benefits of society.

New variety must meet four criteria under the rules established by UPOV.

1. The new plant must be novel, which means



that it must not have been previously marketed in the country where rights are applied for.

2. The new plant must be distinct from others available varieties.
3. The plants must display homogeneity.
4. The trait or traits unique to new variety must be stable so that the plant remains true to type after repeated cycle of propagation.

### Members

As of October 2, 2015 the 74 parties were members of UPOV.

- 1) African intellectual property organization,
- 2) Albania
- 3) Argentina.
- 4) Australia
- 5) Belgium
- 6) Bolivia
- 7) Brazil
- 8) Canada
- 9) China
- 10) Germany
- 11) Italy
- 12) Japan
- 13) Mexico
- 14) Kenya.

## system of protection.

The convention defines both how the organization must be governed and run, and the basic concepts of plant variety protection that must be included in the union. These concepts include -

1. The criteria for new variety to be protected: novelty, distinctness, uniformity, and stability.
2. The process for application for a grant.
3. Intellectual property rights conferred to an approved breeder.
4. Exceptions to the rights conferred to the breeder.
5. Required duration of breeder's right.
6. Events in which a breeder's rights must be declared null and void.

Q 7. Write about PPV & FR Act 2001 of India. plant breeder right, & Registration of plant varieties under PPV & FR Act 2001.

Ans :-

The protection of plant varieties and Farmers, Right Act was pass by the India govt. In 2001. The sui generis system for protection of plant varieties was developed integrating the rights of breeders farmers and village communities, and taking care of the concerns for equitable sharing of benefits.

#### Objectives of The Acts.

1. TO provide for the establishment of an effective system for protection of plant variety.
2. TO provide for the rights of farmers & plant breeders.
3. TO Stimulate Investment for research and development and facilitate growth of the seed industry.
4. TO Ensure availability of high quality seeds and planting materials of improved varieties to farmers.
5. TO provide protection to plant varieties.
6. TO promote growth of seed industry to available high quality seeds.

7. TO protect Rights of Farmers.
8. TO protect plant breeders rights to stimulate investment for research.

### SALIENT FEATURES OF THE PPV&FR ACT 2001.

#### 1. period of protection

The certificate of registration issued under section 24 or sub-section 8 of section 23 shall be valid for 9 years in the case of trees & wines and 6 years in the case of other crops may be renewed and renewed for the remaining period on, payment of such fees as may be fixed by the rules made, subject to the condition that the total period of validity shall not exceed -

- i) In the case of trees & wines, 18 years from the date of registration of the variety.
- ii) In the case of extant variety, 15 years from the date of registration of that variety.
- iii) In other case, 15 years from the date of registration of the variety.

#### 2] Breeder Rights

The certificate of registration for a variety issued under this act shall confer on



exclusive right on the breeder or his successor or his agent or licensee, to produce, sell, market, distribute, import or export of their variety.

### 3] Payment of Annual Fees.

The Authority may, with the prior approval of the central Government, by notification in the official Gazette, impose a fee to be paid annually, by every, breeder of a variety agent and licensee thereof registered under this act determined on the basis of benefit or royalty gained by such breeder agent or licensee, as the case may be, in respect of the variety, for the retention of their registration under this act [section 35 (1)].

### 4] Researchers Rights

This section states, "Nothing contained in this Act shall prevent the use of any variety registered under this Act by any person as an initial source of a variety for the purpose of creating other varieties provided that the authorisation of the breeder of a registered variety is required where the repeated use of such variety as a parental line is necessary for commercial production of such other newly developed variety."

#### 4] Farmers Rights

The farmers Right of the act define the privilege of farmers and their right to protect varieties developed or conserved by them.

A Farmers can save, use, sow, resow, exchange, share and sell farm produce of a protected variety except sale under a commercial marketing arrangement. Further, the farmers have also been provided protection of innocent infringement when at the time of infringement a farmer is not aware of existence of breeder right (section 42).

#### 5] Communities Rights

The rights of the communities as defined, provide for compensation for the contribution of communities in the evolution of new varieties in quantum to be determined by the PPVFR Authority (section 41).

#### 6] Registration of essentially derived varieties

The breeder of the essentially derived variety shall have the same right as the plant breeder of other new varieties which include production, selling, marketing, and distribution including export & import of the variety.

### 7] compulsory license

The authority can grant compulsory license in case of any complaints about the availability of the seed of any registered variety to public and seasonal price. The license can be granted to any person interested to take up such activity after the period of three years from the date of issue of certificate.

### 8] Benefit Sharing

Sharing of benefits accruing to a breeder from a variety developed from indigenous derived plant genetic resources has also been provided (section 26 (1)). The authority may invite claims of benefit sharing of any variety registered under the Act, and shall determine the quantum of such award after ascertaining the extent and nature of the benefit claim, after providing an opportunity to be heard, to both the plant breeder and the claimers.

\* Procedure for Registration (Protection) under the PPV & FR Act 2001. \*

- The application along with enclosures is subject to initial screening by the PPV & FR Authority.
- After initially screening it is formally acknowledged and thereafter thoroughly examined additional information.

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## Application Form

Every application for registration will have to be accompanied with the following information [Section 18].

- a) Denomination assigned to such variety by applicant.
- b) An affidavit sworn by the applicant that such variety does not contain any gene or gene sequence involving terminator technology.
- c) The application should be in such form as may be specified by regulations.
- d) A complete passport data of the parental lines from which the variety has been derived along with the geographical location in India from where the genetic material has been taken and all such information relating to the contribution, if any, of any farmer, village community, institution or organisation in breeding, evolving or developing the variety.
- e) A statement containing a brief description of the variety.
- f) Be accompanied by such fees as may be prescribed.
- g) contains a declaration that the genetic material or parental material acquired for breeding.
- h) Be accompanied by such other particulars as may be prescribed.

NDUS :- Novelty, Distinctiveness, Uniformity, and stability.

DUS :- Distinctiveness, Uniformity, Stability.

\* Development of DUS Test Guidelines and database of extant notified varieties \*

→ Thirty-five crop species were selected for the first round and DUS test procedures on the pattern of Union protection of plant varieties (UPV) were framed by the core group of experts.

→ The covered crops are Rice, Wheat, maize, sorghum, pearl millet, chickpea, pigeon pea, mungbean, Blackgram, lentil, pea, kidney bean, sunflower, castor, sesamum, Linseed, Rapeseed, Mustard, soybean, Groundnut, sugarcane, Lucern, Berseem, cauliflower, cabbage, Brinjal, okra, potato, onion, Garlic, Tomato, Jute, cotton, Rose & Chrysanthemum.

→ Data were generated as per the provisional DUS guidelines by the concerned project directors / project coordinators (PD/PCs).

→ Data generation for different states of distinguishing characters of reference.

→ Example varieties has been completed by concerned PD/PCs. Generated data were collated and

digitized by NBPGR under the PVP scheme.

→ A database of varieties and hybrids of the above mentioned thirty-five identified crops, released the All India Coordinated programme and notified under the seed Act, 1966 since 1987 till now, has also been created jointly by the NBPGR & Directorate of seed Research (DSR) under the PVP scheme.

(<http://www.nbpgs.res.in/ncsv/index.aspx>).

### Procedure for Registration

1. submission of application form + technical questionnaire along with the registration fees.
- ↓
2. Initial preliminary examination of application is done.
- ↓
3. If application in proper shape then acknowledgement receipt issue
- ↓
4. File sorting done and unique numbers allotted to each application.
- ↓
5. After unique number given to application, Application issued for further examination.
- ↓
6. Examination report submitted to registrar, Report discussed and verified.
- ↓



7. communication is made with the applicant for submission of lacking information.

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Q 8. What is Researcher & Farmers Rights, Traditional knowledge meaning & Right of TK holders.

Ans :-

### Researcher Right

The researchers have been provided access to protected varieties for bonafide research purpose (section 30). This section states, 'Nothing contained in this Act shall prevent the use of any variety registered under this act by any person using such variety for conducting experiments or research and the use of a variety by any person as an initial source of a variety for the purpose of creating other variety provided that the authorisation of the breeder of a registered variety is required where the repeated use of such variety as a parental line is necessary for commercial production of such other newly developed variety.'

## Farmer's Rights

The farmer's rights of the Act define the privilege of farmers and their right to protect varieties developed or conserved by them. A farmer can save, use, sow, resow, exchange, share and sell farm produce of a protected variety except sale under a commercial marketing arrangement (branded seeds).

- Further, the farmers have also been provided protection of innocent infringement when at time of infringement a farmer is not aware of existence of breeders rights.
- A farmer who is engaged in the conservation of genetic resources and wild relatives of economic plants & their improvement through selection and preservation shall be entitled in the prescribed manner for recognition and reward from the gene fund.
- provided the material so selected and preserved has been used as donors of genes in varieties registrable under the Act.

[Plant Genome Saviour Award has been instituted].

**Traditional Knowledge (TK).**

Traditional Knowledge (TK) is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity.

**Rights of TK holders.**

1. Defensive protection

Defensive protection refers to a set of strategies to ensure that third parties do not gain illegitimate or unfounded IP rights over TK.

2. Positive Protection

Two aspects of positive protection of TK by IP rights are being explored :-

- 1. Preventing unauthorized use, and,
- 2. Active exploitation of TK by the originating community itself.

Q 9. Write About convention on biological diversity, International Treaty on Plant genetic Resources for food & Agriculture (ITPGRFA). Indian Biological diversity Act, 2002 & its salient features, access & benefit sharing.

Ans:-

### Biological Diversity.

Biological diversity is the variability among the living organisms from all sources including terrestrial, marine & other aquatic ecosystem & ecological complexes in which they are the part and this includes diversity within species between species and of the ecosystem. A concise definition of biodiversity is the totality of genes, species & ecosystem in a region.

There are 3 hierarchical level of Biodiversity.

#### 1. Genetic Diversity

The diversity in the genetic makeup of a species.



## 2. species of diversity.

species diversity refers to the variety of species within a region.

## 3. community & ecosystem diversity

A community is a group of population of different species in a given area.

depending upon the availability of biotic & abiotic resources & condition of the environment an ecosystem developed its own characteristics community of living organisms.

.ITPGRFA.

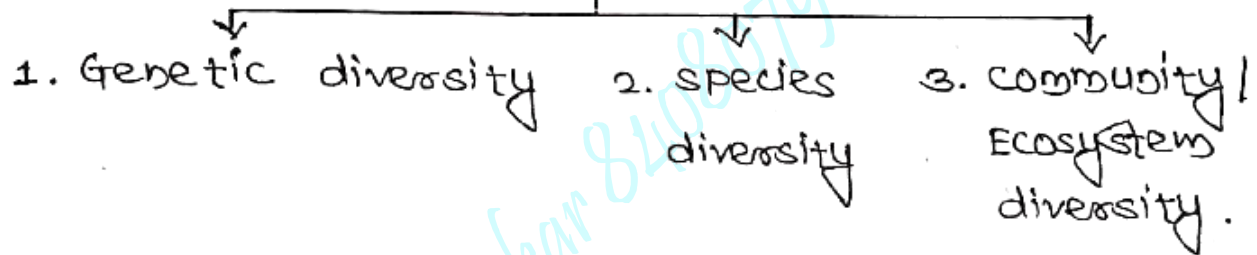
The International treaty on plant genetic Resources for Food & Agriculture popularly known as the International seed treaty, is a comprehensive international agreement in harmony with the convention on biological diversity, which aims at guaranteeing food security through the conservation of exchange & sustainable use of world's plant genetic resources for food and agricultural as well as the fair & equitable benefit sharing arising from its use.

## Indian Biological Diversity Act, 2002.

### Biodiversity

The variability among living organisms from all sources & the biological complexes of which they are part, and include diversity within species or between species and of ecosystem.

### Levels of Biodiversity



### Few Imp. facts about India.

- India is one of the 17 mega-diverse country in the world.
- With only 2.4% of the world's area, India accounts for 7-8% of the world's recorded plant & animal species.
- About 5,150 plant species and 1837 animal species are endemic to India.

## Biological Act 2002.

An Act to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge & other matters connected therewith or incidental thereto.

### Salient Features

- To regulate access to biological resources of the country.
- To conserve and sustainably use biological diversity.
- To respect & protect knowledge of local communities related to biodiversity.
- To secure sharing of benefits with local people as conservers of biological resources and holders of knowledge & information relating to the use of biological resources.
- Protection & Rehabilitation of threatened spp.
- Involvement of institution of state gov. in the broad scheme of the implementation.

## convention on Biological diversity (CBD)

- The convention is founded on the principle that local communities generate and are dependent on biodiversity and should continue to benefit from it.
- India became a signatory to the convention on biological diversity (CBD) on 5th day of June 1992.

Three goals of CBD.

1. To promote the conservation of biodiversity.
2. The sustainable use of its components.
3. The fair and equitable sharing of benefits arising out of the utilization of genetic resources.

### The structures of Biodiversity Act - 2002.

1. National Biodiversity Authority (NBA).
2. State Biodiversity Boards (SBB)
3. Biodiversity management committees (BMC).