PATENT BASICS

by

Dr. Gopakumar G. Nair
Gopakumar Nair Associates
gopanair@gnaipr.net
IP evolution

Property → Right

INTELLECT – PROPERTY – RIGHT

Idea → Expression → Copyright

Idea → Innovation → Invention → Patent

Idea → Quality + Identity → trademark

Idea → appearance → design

Idea → keep confidential → Trade Secrets
   no disclosure
IP Portfolio

Patents, Designs, Copyrights, Trade Marks, Know How, Trade Secrets, Confidential Information, Reputation
<table>
<thead>
<tr>
<th>INTELLECTUAL PROPERTY RIGHTS</th>
<th>QUASI INTELLECTUAL PROPERTY RIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patents</td>
<td>Confidential Information</td>
</tr>
<tr>
<td>Trade Marks</td>
<td>Know How</td>
</tr>
<tr>
<td>Designs</td>
<td>Trade Secrets</td>
</tr>
<tr>
<td>Copyright</td>
<td>Reputation</td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>
IP Portfolio  (cont’d.)

Others:-
G.I, CBD, UPOV,
IC Layouts,
Related rights
neighboring rights
domain names

Others:-
Data Exclusivity
Brand loyalty/goodwill
House name
Client / customer lists
Market intelligence
Test methods
In-house Standards/Specs
Impurity profiles
Management practices
**Intellectual Asset Portfolio**

- Company name (Logo) & Regulation
- Brand names & Goodwill
- Registered Trade Mark
- Copyright – licensable / protectable matter

---

**Trade Secrets**

- Know-how
- Client lists
- Customer data
- Price / information pricing
- Business practices
- Market psyche / Statistics
- Valuation Strategies
Product Patents in India


23 yrs. + 10 yrs

End of Product Patent era

Reverse Engg. Era

Return of the era

Beginning of Product Patents Era

GATT → WTO → TRIPs → IPA amendments
International Organizations & Treaties

- GATT / WTO
- WIPO
- PCT
- BUDAPEST TREATY
- STRASSBOURG AGREEMENT (IPC)
- USPTO – 35 USC
- EPO / EPC

- TRIPs
- PARIS CONVENSION
- PLT
  (TRIPS COUNCIL)
Overview of TRIPs

As we have seen TRIPs is the outcome of 7 years of Uruguay Round negotiations from September 1986 to December 1993. These negotiations began at Punta del Este in Uruguay and ended at Marrakesh in Morocco.

The Agreement on the Trade Related Aspects of Intellectual Property Rights

The Agreement on Trade Related aspects of Intellectual Property Rights (TRIPs Agreement) 1994 constitutes Annex 1C of the Marrakesh Agreement establishing WTO. This Agreement binds all members of WTO.
TRIPS

• The TRIPS (Trade Related Aspects of Intellectual Property Rights) Agreement came into being with the establishment of the WTO (World Trade Organization) effective from 1st January, 1995
TRIPS

• Intellectual Property Rights itself is defined, in the context of the TRIPS as a right given to people over the creations of their minds. It usually gives the creator an exclusive right over the use of his creations for a certain period of time.
TRIPS

The TRIPS Agreement consists of 73 articles contained in the following seven parts:

- **Part I**: General provisions and basic principles
- **Part II**: Standards concerning the availability, scope and use of Intellectual Property Rights
- **Part III**: Enforcement of Intellectual Property Rights
- **Part IV**: Acquisition and maintenance of Intellectual Property Rights and related inter-partes procedures
- **Part V**: Dispute prevention and settlement
- **Part VI**: Transitional arrangements
- **Part VII**: Institutional arrangements; final provisions
TRIPs

Part – I
Art. 1 to 8

- Nature & Scope
- IP Conventions
- National Treatment
- Exhaustion
- Objectives
- Principles
PATENTS

Part – II, Sec.5
Art. 27 to 34

Art. 39.3
Data Exclusivity

Patents
IP in innovations
- Inventions Patentable
  includes
  - Incremental innovations
  - Compositions/Combinations
  - NDDS
Patentable Subject Matter

1. Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.[1] Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect ordre public or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.
3. Members may also exclude from patentability:
   (a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;
   (b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

[1] For the purposes of this Article, the terms "inventive step" and "capable of industrial application" may be deemed by a Member to be synonymous with the terms "non-obvious" and "useful" respectively.
TRIPS – Substantive Standards

Article 27 - The International Norm on substantive patent-ability

The Article provides:-

 السعودي  Patents for all inventions

 السعودي  Uniformity for 20 years

 السعودي  Whether products or processes

沙特阿拉伯  In all fields of technology

沙特阿拉伯  They should be new
TRIPS – Substantive Standards (continue..)

Should involve an inventive step

Must be capable of industrial application

Patent rights should be enjoyable without discrimination as to:

- the place of invention
- the field of technology
- whether products are imported or locally produced
TRIPS – The Exceptions

Exclude from patentability inventions of which is necessary to protect:

- public order
- morality
- human life
- animal life
- health, or
- environmental hazards
TRIPS – The Exceptions

May also exclude from patentability:

- diagnostic methods
- therapeutic methods
- surgical methods
- methods for treatment of human
- plants
- animals
- essential biological processes for the production of plants
- essential biological processes for the production of animals
TRIPS – The Exceptions

The exclusions do not include:

- micro-organisms
- non-biological processes
- microbiological processes

Members must provide:

- plant patent; or
- sui generis protection for plant variety; or
- a combination of the both

GNAs
What is a Patent?

A patent is a protection given to a patentee for an invention for a limited term by the government for disclosing the invention.

Right to exclude others from using your invention.

Owner has a qualified right to use the invention.
What is PATENT?

• A legal document issued by the patent office

• Granted for a limited period

• Confined within the geographical limit of the country

• Confers a right to exclude others
What is PATENT? (continue..)

• A conditional grant
• Balance of Rights and Obligations
• Subject to other laws of land
• Granted to owner of invention/assignee
Three Statutory Benchmarks for Patentability as per the Patents Act, 1970:

1. Novelty (Section 2(1)(l))

2. Non-Obviousness (Section 2(1)(ja))

3. Industrial Applicability (Section 2(1)(ac))
An invention can be patented if it is

* **NOVEL** – Must involve INVENTIVE STEP

* **NON-OBVIOUS** to a person “Skilled in the Art”
  MUST DISTINGUISH from “State of the Art”
  (PRIOR ART)

* Must be **USEFUL** – must have INDUSTRIAL APPLICATION
Novelty

- Must be new
- Not known to others in public
- Not ANTICIPATED BY PRIOR ART
Non-Obvious

THE DIFFERENCES BETWEEN THE INVENTION and the PRIOR ART are such that the subject matter as a whole WOULD HAVE BEEN OBVIOUS at the time the invention was made to a PERSON SKILLED IN THE ART, to which the subject matter pertains.
Section 2 (1) (ja) – inventive step” means a feature that makes the invention not obvious to a person skilled in the art.

New Definition of Section 2 (1) (ja):
"inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.
Utility / Industrial Application

- Be Useful
- Must work / be workable
- At least one recognized, verifiable and practical end-use
OTC Product

TRADEMARK (BRANDNAME)

Design (Packing Format + Style)

Copyright (printed matter & manner of presentation)

PATENT (novel formulation process/combination)

Trade Secret Know-how
TRIPs compliance by INDIA

India
http://www.patentoffice.nic.in
http://www.ipindia.nic.in


Definitions

2(1) (j) “inventions” means a new product or process involving an inventive step and capable of industrial application;

2 (1) (ja) “inventive step” means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art;
Patents Act, 1970

What is not Patentable

Sec 3(a) an invention which is frivolous or which claims anything obviously contrary to well established natural laws;

Sec 3(b) an invention, the primary or intended use or commercial exploitation of which would be contrary to public order or morality or which or causes serious prejudice to human, animal or plant life or health or to the environment;

Sec 3(c) the mere discovery of a scientific principle or the formulation of 20 or discovery of any living thing or non-living substance occurring in nature;
What is not Patentable

Sec. 3(d) the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.

Explanation – for the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy;

Sec. 3(e) a substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance;
What is not Patentable

Sec. 3(f) the mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way;

Sec. 3(g) omitted (method of testing).

Sec. 3(h) a method of agriculture or horticulture;

Sec. 3(i) any process for the medicinal, surgical, curative, prophylactic [diagnostic, therapeutic] or other treatment of human beings or any process for a similar treatment of animals to render them free of diseases or to increase their economic value or that of their products;
What is not Patentable

Sec. 3(j) plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals;

Sec. 3(k) a mathematical or business method or a computer programme *per se* or algorithms;

Sec. 3(l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;
What is not Patentable

Sec. 3(m) a mere scheme or rule or method of performing mental act or method of playing game;

Sec. 3(n) a presentation of information;

Sec. 3(o) topography of integrated circuits;

Sec. 3(p) an invention which, in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.
Patentability Filter

- Prior use/ prior publication/ prior disclosure
- Industrial applicability
- Novelty
- Non-obviousness- inventiveness
- Sec.3- Not patentable
- Written description / enablement requirements
- Application/ specification/ claims
- Patent prosecution
- Maintenance / Defense after grant
When to file: - Earliest – as provisional
Could continue working - & file complete specification later

- To establish PRIORITY DATE
- To pre-empt others
Provisional Specification

To establish priority date
To establish early ownership

Complete specification to be filed within 12 months of Provisional
Complete Specification

- Title
- Technical Field
- Background and Prior Art
- Current Problem / Drawback / Gap
- Solution to the problem/improvement
- Summary of Invention
- Detailed Description
- Experiments/Trials/Examples (incl. Tabular column if any)
- Claims
- Abstract
Patent Term (under I.P.A.)

IPA
20 years

In case of international applications filed under PCT, the term of patent is 20 years from the date of filing of the application (Amendment Act, 2005)

TRIPs
20 years from date of application
The Patents Act, 1970

S.6 – Eligible Applicants

S.7 – Provisional Form 1 Application Complete Rule 20(1)

Appropriate Office – Rule 2/Rule 4
Designated Office – PCT
Jurisdiction –
True & First inventor –
Statement – Inventor
Declaration – by Applicant

The First Schedule – Fee
The Second Schedule – Forms (corresponding Acts & Rules)

GNAs
The Patents Act, 1970

S.8 – Foreign Filing Information (Rule 12) Form 3

S.9 – Provisional
   - No claims
   - No Abstract
   - At least one mode/method of performing

Complete
   Within one year

Cognate
   - Unity of Invention (single inventive concepts)
   - Convention vs. PCT
   - Complete Provisional

Procedure for Post-dating of Application
The Patents Act, 1970

S.10 – Form 2 (Rule 13)
Written Description

- Title, Drawings, Description of Drawings
- Sample, Model, example to illustrate the invention
- No prototype required
- Fully describe invention, operation, use and method of performance
- Best Method Disclosure
  (for claim protection)
- Abstract - Amendable
  (to provide information to third parties)

- If Biological – source
- If Depository – Accredition Number

(... Contd)
The Patents Act, 1970

S.10 – Form 2 (Rule 13) (……………… Contd)

Minimum Requirements
Title, Description (Drawings), Claims & Abstract
Background & Prior Art

Maximum Requirements
- Any additional information on priority
- Technical Field
- Prior Art
- Objectives
- Summary
- Definitions
- Disclaimers - Ex:-
- Omnibus claims – Ex-
- Single Invention
- Declaration of Inventorship
- Form 5 [S. 10(6) & Rule 13 (6)]
The Patents Act, 1970

Ratio of Fees – 1 : 4 (Natural Person : Others)

A few examples:

<table>
<thead>
<tr>
<th></th>
<th>Natural person</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent Application- Form 1 &amp; 2</td>
<td>Rs.1000</td>
<td>Rs.4000</td>
</tr>
<tr>
<td>Request for early publication (optional)</td>
<td>Rs.2500</td>
<td>Rs.10000</td>
</tr>
<tr>
<td>Request for Examination</td>
<td>Rs.2500</td>
<td>Rs.10000</td>
</tr>
<tr>
<td>Maintenance Fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd to 6th years</td>
<td>Rs.500</td>
<td>Rs.2000</td>
</tr>
<tr>
<td>7th to 10th years</td>
<td>Rs.1500</td>
<td>Rs.6000</td>
</tr>
<tr>
<td>11th to 15th years</td>
<td>Rs.3000</td>
<td>Rs.12000</td>
</tr>
<tr>
<td>16th to 20th years</td>
<td>Rs.5000</td>
<td>Rs.20000</td>
</tr>
</tbody>
</table>
SPECIFICATION

and

CLAIM DRAFTING
Start Drafting

Read Technical matter with Prior Art.
Find key features of invention.
Process/Product/new use/new application.
What constitutes the invention?
What are the gaps/drawbacks in prior art?
What problem is being solved?
Start noting down the elements/keywords
(search once again) (and again)
Proceed with drafting
(Ask more questions; seek more data)
Proceed
Contents of a Patent Specification

- Title
- Field of invention
- Background of Invention
- Summary of Invention
- Brief Description of Drawings
- Detailed Description of Invention
- Drawings (if any)
- Claims
- Abstract
Field of Invention

- Briefly describes the area of technology in which the invention falls.
- Often not more then one or two sentences.
- Useful in classification of patent.
- Often starts “This invention relates to--”
Background

- This section involves Discussion on progression of technology.
- Description of prior art i.e. the present state of technology (state-of-art)
- Discussion on existing problems in prior art.
- Possible solutions offered by present invention.
Summary of Invention

- Discloses a gist of present invention.
- Highlights “problems solved by present invention.”
- Reflects the broadest claim.
Brief Description of Drawings

- Drawings are provided for better understanding of invention.

- This section helps to identify the labels and figures disclosed in drawings.
Detailed Description of Invention

- Starts with general overview of invention.

- Narrows down to details of theory and all the processes and methods for making and using the invention.

- Invention described with help of preferred embodiments (Best Mode).

- Alternative embodiments can be disclosed.
Claims

- Describe the essential elements and legal boundaries of an invention.
- Should be supported in entirety by Specification.
- First claim or Independent claim is often the broadest.
- “comprising of” – preferred term.
- “characterised in that” - to distinguish
- Dependent claims expand, qualify, limit, narrow, quantify the elements in Claim 1.
Element of a Claim

1) Preamble – Ex :-

(1) A process for preparation of (comprising)
(2) An anticancer oral dosage composition (comprising)

2) Transitional Phrases – including consisting, using, employing, containing, composed of, constituted of.
Preferred Phrase – “comprising”
Limiting or Restrictive Phrase – “characterized in that”

3) Body or claim elements.
Basic Types of Claims

- Independent Claim.
- Dependent Claims.
- Omnibus Claim
Independent Claim

- Is the first claim.
- Stands alone.
- Often the broadest claim.
- Broadly describes the invention thereby preventing competitors to circumvent the invention.
- Prior Art and “inventiveness” determines broadness of the Claim 1.
Dependent Claims

- Depend on first claim.
- Refer to important distinguishing features of the invention as described in Claim 1.
- Claims often narrow-down the scope of invention.
- Subject to “Unity of Invention”, more than one Independent Claim possible.
- Claims must not be independent sentences.
Relationships

Claim 1 is related to / similar to Title (key element in brief)

1) Abstract (differs only in language)
2) Technical field (this invention relates to)
3) Summary (expanded claim 1 + combined with key elements of other important claims)
Care & Caution

- Language
- Choice of ‘Tense’
- Proof reading
Claim Drafting

- Derive/Determine Keywords/Search
- Distinguish Old from New
  - Prior Art → Novelty
- FOCUS – INVENTION – FEATURES
- Property/Product/Process
- Structure/Steps/Techniques/Concepts
- “use of comprising”, “and/or”, “wherein” separating “Preamble” from “Body”
- Independent Claim
- Dependent Claim
Claim Drafting

- INVERTED PYRAMID
  - Broad to Narrow
  - Generic to Specific

- Pencil
- Ink pen
- Ink-filled pen
- Ball pen with cap
  - push, expose and write
  - click and withdraw
  - turn on cap
Size, etc., of documents – (1) All documents and copies of documents, except affidavits and drawings, sent to or left at the patent office or otherwise furnished to the Controller shall be written or typewritten or printed either in Hindi or in English language (unless otherwise directed or allowed by the Controller) in large and legible characters with deep indelible ink with lines widely spaced upon one side only of strong white paper of a size A-4 of approximately 29.7 centimeters by 21 centimeters with a margin of at least 4 centimeters on the top and left hand part and part and 3 cm on the bottom and right hand part thereof. Any signature which is not eligible or which is written in a script other than Hindi or English shall be accompanied by a transcription of the name either in Hindi or in English in block letters:
Provided that any document including drawing, if any, may also be filed in electronic form along with a copy of it on white paper:

Provided further that in case the application for patent discloses sequence listing of nucleotides and/or amino acids, the same shall be filed in electronic form.

(2) Additional copies of all documents shall be filed at the appropriate office, if required by the Controller.

(3) Names and addresses of applicants and other persons shall be given in full together with their nationality and such other particulars, if any, as are necessary for identification.
Enablement Requirements

Section 10 of Indian Patent Act, 1970
(Section 112 Para. 6 of 35 USC)

Written Description

Deposit and declaration of source for Microorganism
Prosecution of a Patent

1) Optional Early Publication, OR
   18 months publication (automatic)

2) Request for Examination

3) First Examination Report

4) Responses – to & fro

5) Acceptance for grant, OR
   Rejection
Patent Grant Procedure

1. Filing of patent application
2. Early Publication
3. Publication after 18 months
4. Pre Grant Opposition / Representation by any person.
5. Request for examination
6. Examination: Grant or Refusal
7. Publication of Grant of patent
8. Post Grant Opposition to grant of patent (Constitution of Opposition Board)
9. Decision By Controller
Grant of Patent

Patent Term – 20 years from priority date
(date of application ?)

Rights of Patentee (for both products and/or process) – Exclusive right to prevent third parties from making, offering for sale, selling or importing GNAs
Patent of Addition
  Similar to CIP (Continuation in Part)

Revocation of Patents
  Section 64
Compulsory Licence
Section 84 to 94

Government Use
Section 99 to 102
Infringement/Enforcement

Section 104 – Jurisdiction
Section 104 A – Burden of Proof
Section 105 – Declaration of Non-infringement
Section 106 – Groundless threats
Section 107 A – Research Exemption
Section 107 B – Parallel Imports
Section 116 – APPELLATE BOARD (IPAB)
Need for an

IPR / Patent Cell
Patenting
Patent Cell Functions

- Prior Art search
- Invention mining / diving
- Technical field determination
- Technical brief to Patent Attorneys
- Drafting discussions
- Filing formalities
- Opposition strategies – offence / defense
- Monitoring competitor activities through continuous search / Radar operations
- Patent / IPR portfolio maintenance
- International / National Patenting Strategies
- Infringement Searches/Monitoring

GNAs
...contd.

Patenting

Patent Cell Functions

- Assessing commercial potential of innovations
- Protecting Intellectual Properties/Innovations
- Marketing Intellectual Properties/Innovations
- Negotiating Intellectual Properties/Innovations
- Licencing Intellectual Properties/Innovations
- Successful Technology Transfers
- Valuation strategies
PROACTIVE IP MANAGEMENT

SEARCH
PROTECTION
MAINTENANCE
OPPOSITION
DEFENSE
ENFORCEMENT
INFRINGEMENT ACTION
LICENCING IN/OUT
COMMERCIALISATION
(VALUE EXTRACTION)
M&A → EYE ON IP
CONSOLIDATION OF IP/KC/IC
IP / Patent Licensing Strategies

Opportunity Identification value realisation implementation & Enforcement

“Carrot” – Licence (M/A. Tete)
“Stick” – Licence (Impd. Litigations)

Enforce Terms
Ensure Returns

Co-licencing / Cross Licensing / Co-marketing

GNAs
Out-licensing

Ex-IBM licensing revenue over One Billion $ P.A.
Mostly – non-core IPs / patents / non-strategic IPs
- Core IPs / Patents to non-competitors

1990 – US IP licencing income - $.15 Billion
2000 - US IP licencing income – over $.100 Billion
In – Licencing

Complement Sustained growth
Steady flow of products
Faster & less expensive (?)
Pharma (Approx. 40%)
Overseas Applications

PC – Paris Convention
PCT – Patent Co-operation Treaty
USPTO – 35 USC
EPO - EPC
Patent Filing Strategies

1. Only National Filing
2. Only Convention filing (US / EU etc.)
3. National + Convention country
4. Only PCT
5. National + PCT
6. National + US + PCT
7. National + US + EU
8. National + US + EU + PCT
PCT
INTERNATIONAL APPLICATION
(PCT) Filing
PCT

- PCT is an International patent filing system
- Not patent granting system
- There is no world patent

International phase

National Phase
PCT : International Phase

- Filing of International application
- International search
- International publication
- International Preliminary Examination
PCT : National or Regional Phase

- National and Regional phase before designated offices
  Grant of the national / regional patent is made exclusively by respective offices
PCT filing

Filing in any one contracting state (optional)

- First filing

PCT

PCT filing within 12 months

- PCT fees to be paid within one month from date of filing PCT
- International search report (ISR) from International Search Authority (ISA) within 16 months from priority
- Claims amendments within 2 months from receipt of ISR / 18 months from priority date (wherever required)
- PCT publication after 18 months from priority date

Contd…. 
PCT filing

- International Examination (optional)
  - Filing demand for International preliminary examination within 19 months from priority for elected states
  - During International Preliminary examination report (IPER) from International Preliminary Examination Authority (IPEA) : file amendments and / or arguments
  - PCT preliminary examination report within 28 months from priority
Enter into national / regional phase within 30 or 31 months

- Elect the countries
- Co-ordinate with patent attorneys in respective countries
- Translation (wherever required)
- File national application
- Priority document (wherever required)
PCT filing

Contd....

- National / Regional filing
  - Payment of National fee
  - Submission of Published international application containing
    - Copy of PCT originally filed;
    - Copy of ISR;
    - Copy of any amendments to the claims under Article 19;
    - copy of priority documents;
    - International preliminary examination report on patentability (wherever applicable);
    - International Amendment or Arguments (wherever applicable).
  - Translation wherever required
International filing fees

- Transmittal fee
  (Rs. 2000/- for Natural person and Rs. 8000/- for Legal entity)
- International filing fee
  ($ 1210/- upto 30 sheets; extra $ 14/- for every additional sheet)
- International Search fee (depending upon ISA)
- Priority fee
  (Rs. 1000/- for Natural person and Rs. 4000/- for Legal entity)
- International preliminary examination fee and handling fee
  (depending upon IPEA)
**International Search Authorities and respective fees**

<table>
<thead>
<tr>
<th>Country</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>$314/-</td>
</tr>
<tr>
<td>CA</td>
<td>$1597/-</td>
</tr>
<tr>
<td>EP*</td>
<td>$2665/-</td>
</tr>
<tr>
<td>JP</td>
<td>$949/-</td>
</tr>
<tr>
<td>RU</td>
<td>$500/-</td>
</tr>
<tr>
<td>US</td>
<td>$1800/-</td>
</tr>
<tr>
<td>FI</td>
<td>$2665/-</td>
</tr>
<tr>
<td>AU</td>
<td>$1302/-</td>
</tr>
<tr>
<td>CN</td>
<td>$280/-</td>
</tr>
<tr>
<td>ES*</td>
<td>$2665/-</td>
</tr>
<tr>
<td>KR</td>
<td>$220/-</td>
</tr>
<tr>
<td>SE</td>
<td>$2665/-</td>
</tr>
<tr>
<td>XN</td>
<td>$2665/-</td>
</tr>
</tbody>
</table>

* International search fee payable to EPO and the Spanish Patent and Trademark is reduced by 75 %, if the applicant is a Natural person of a developing country.
### International Preliminary Examination Authority and respective fees; handling fees

<table>
<thead>
<tr>
<th>IPEA</th>
<th>fee</th>
<th>Handling fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>EUR 200/-</td>
<td>EUR 121/-</td>
</tr>
<tr>
<td>AU</td>
<td>AUD 550/-</td>
<td>AUD 196/-</td>
</tr>
<tr>
<td>CA</td>
<td>CAD 800/-</td>
<td>CAD 171/-</td>
</tr>
<tr>
<td>CN</td>
<td>CNY 1500/-</td>
<td>CNY 200/-</td>
</tr>
<tr>
<td>EP*</td>
<td>EUR 1675/-</td>
<td>EUR 121/-</td>
</tr>
<tr>
<td>ES</td>
<td>EUR 555/-</td>
<td>EUR 121/-</td>
</tr>
<tr>
<td>FI</td>
<td>EUR 550</td>
<td>EUR 121/-</td>
</tr>
<tr>
<td>JP</td>
<td>JPY 36,000/-</td>
<td>JPY 19,600/-</td>
</tr>
<tr>
<td>KR</td>
<td>KRW 450,000/-</td>
<td>KRW 157,000/-</td>
</tr>
<tr>
<td>RU</td>
<td>USD 200/-</td>
<td>USD 171/-</td>
</tr>
<tr>
<td>SE</td>
<td>SEK 5000/-</td>
<td>SEK 1110/-</td>
</tr>
<tr>
<td>US</td>
<td>USD 600/-</td>
<td>USD 171/-</td>
</tr>
<tr>
<td>XN</td>
<td>DKK 5,000/-</td>
<td>DDK 900/-</td>
</tr>
</tbody>
</table>

* Preliminary examination fee payable to the EPO is reduced by 75%, if the applicant is a natural person of developing country.
The European Patent Organisation

- Established by the Convention on the Grant of European Patents (EPC) signed in Munich 1973, the EPO is the outcome of the European countries’ collective political determination to establish a uniform patent system in Europe.
- As a centralised patent grant system administered by the European Patent Office on behalf of all contracting states, it is a model of successful co-operation in Europe.

The European Patent Organization comprises
- its legislative body, the Administrative Council
- its executive body, the European Patent Office
Chapter I - Patentability

• Article 52 - Patentable Inventions
• Article 53 - Exceptions to patentability
• Article 54 - Novelty
• Article 55 - Non-prejudicial disclosures
• Article 56 - Inventive Step
• Article 57 - Industrial Application
Article 52 - Patentable inventions

(1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;
(b) aesthetic creations;
(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
(d) presentations of information.
Article 52 - Patentable inventions (Contd.)

(3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.

(4) Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body shall not be regarded as inventions which are susceptible of industrial application within the meaning of paragraph 1. This provision shall not apply to products, in particular substances or compositions, for use in any of these methods.
European patents shall not be granted in respect of:

(a) inventions the publication or exploitation of which would be contrary to "ordre public" or morality, provided that the exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation in some or all of the Contracting States;

(b) plant or animal varieties or essentially biological processes for the production of plants or animals; this provision does not apply to microbiological processes or the products thereof.
Article 54 - Novelty

(1) An invention shall be considered to be new if it does not form part of the state of the art.

(2) The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.

(3) Additionally, the content of European patent applications as filed, of which the dates of filing are prior to the date referred to in paragraph 2 and which were published under Article 93 on or after that date, shall be considered as comprised in the state of the art.
Article 54 – Novelty (Contd.)

4) Paragraph 3 shall be applied only in so far as a Contracting State designated in respect of the later application, was also designated in respect of the earlier application as published.

5) The provisions of paragraphs 1 to 4 shall not exclude the patentability of any substance or composition, comprised in the state of the art, for use in a method referred to in Article 52, paragraph 4, provided that its use for any method referred to in that paragraph is not comprised in the state of the art.
Article 55 – Non-prejudicial disclosures

(1) For the application of Article 54 a disclosure of the invention shall not be taken into consideration if it occurred no earlier than six months preceding the filing of the European patent application and if it was due to, or in consequence of:

(a) an evident abuse in relation to the applicant or his legal predecessor, or

(b) the fact that the applicant or his legal predecessor has displayed the invention at an official, or officially recognized, international exhibition falling within the terms of the Convention on international exhibitions signed at Paris on 22 November 1928 and last revised on 30 November 1972.
(2) In the case of paragraph 1(b), paragraph 1 shall apply only if the applicant states, when filing the European patent application, that the invention has been so displayed and files a supporting certificate within the period and under the conditions laid down in the Implementing Regulations.
Article 56 – Inventive Step

An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art. If the state of the art also includes documents within the meaning of Article 54, paragraph 3, these documents are not to be considered in deciding whether there has been an inventive step.
Article 56 – Inventive Step

An invention shall be considered as susceptible of industrial application if it can be made or used in any kind of industry, including agriculture.
35 USC
Section 100. Definitions

When used in this title unless the context otherwise indicates--

(a) The term "invention" means invention or discovery.

(b) The term "process" means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.
35 USC

Section 100. Definitions (Contd.)

(c) The terms "United States" and "this country" mean the United States of America, its territories and possessions.

(d) The word "patentee" includes not only the patentee to whom the patent was issued but also the successors in title to the patentee.

(e) The term "third-party requester" means a person requesting ex parte reexamination under section 302 or inter partes reexamination under section 311 who is not the patent owner.
Section 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.
35 USC

Section 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless--
  (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
  (b) invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
Section 102. Conditions for patentability; novelty and loss of right to patent (Contd.)

(c) as abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or
Section 102. Conditions for patentability; novelty and loss of right to patent (Contd.)

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent, or

(f) He did not himself invent the subject matter sought to be patented, or
(g) before the applicant's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other
Section 103. Conditions for patentability; non-obvious subject matter

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
Section 103. Conditions for patentability; non-obvious subject matter (Contd.)

(b) (1) Notwithstanding subsection (a), and upon timely election by the applicant for patent to proceed under this subsection, a biotechnological process using or resulting in a composition of matter that is novel under section 102 and non-obvious under subsection (a) of this section shall be considered non-obvious if-

- claims to the process and the composition of matter are contained in either the same application for patent or in separate applications having the same effective filing date; and
Section 103. Conditions for patentability; non-obvious subject matter (Contd.)

- the composition of matter, and the process at the time it was invented, were owned by the same person or subject to an obligation of assignment to the same person.

(2) A Patent issued on a process under paragraph (1)-
- shall also contain the claims to the composition of matter used in or made by that process, or

- shall, if such composition of matter is claimed in another patent, be set to expire on the same date as such other patent, notwithstanding section 154.
(3) For purposes of paragraph (1), the term “biotechnological process” means
A. a process of genetically altering or otherwise inducing a
   – single – or multi-celled organism to –
   • express an exogenous nucleotide sequence,
   • inhibit, eliminate, augment, or alter expression of an endogenous nucleotide sequence, or
   • express a specific physiological characteristic not naturally associated with said organism;
Section 103. Conditions for patentability; non-obvious subject matter (Contd.)

B. cell fusion procedures yielding a cell line that expresses a specific protein, such as a monoclonal antibody; and
C. a method of using a product produced by a process defined by subparagraph (A) or (B), or a combination of subparagraphs (A) and (B).

(c) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.
Section 112. Specification

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
35 USC

Section 112. Specification (Contd.)

A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.
A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and **equivalents thereof**.