INTRODUCTION:

1. A patent is an exclusive right granted by the Government for an invention.

2. Patent is granted for a limited period of time in consideration of disclosure of the invention by the applicant.

3. A patentee enjoys exclusive right to prevent a third party from an unauthorized act of making, using, offering for sale, selling or importing the patented product or process within the country during the term of the patent.

4. A patented invention becomes free for public use after expiry of the term of the patent or on account of non-payment of renewal fee.
"invention" means a new product or process involving an inventive step and capable of industrial application;

1. Invention is to find out or discover something not found or discovered by anyone before.
2. It is not necessary that the invention should be anything complicated.
3. Invention could be in any field such as mechanical, technical, biotechnology or computer related.
4. Invention may be related to any sector such as pharmaceuticals, automobile, aviation, seeds and chemicals etc.
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<th>WHY PATENT SHOULD BE/IS GRANTED FOR AN INVENTION?</th>
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<td>1. To reward inventors for his mental labour.</td>
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<td>2. To accord recognition to inventor’s contribution.</td>
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<td>3. To incentivise individual to disclose information that may otherwise remained secret.</td>
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<td>4. To provide encouragement for innovation.</td>
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<td>5. To promote economic ends i.e. encouragement for industries to invest in research and development.</td>
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<td>6. To promote macro-economics of the country and;</td>
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<td>7. To provide benefit to public at large by disclosure of an invention.</td>
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THE CRITERIAS FOR AN INVENTION TO BE PATENTABLE:

(i) Invention must be novel;
   Ex - Invention must be absolutely new in whole world.

(ii) Invention must have an inventive step;
   "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.

(iii) Invention must be capable of industrial application;
   The invention is capable of being made or used in an industry.
(iv) The invention does not fall within “Not Patentable” subject matter.

- Frivolous or obviously contrary to well established natural laws;
- Scientific theory, mathematical formula and computer program;
- Contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment.
1. TEST OF NOVELTY OF AN INVENTION:

An invention is considered to be new (novel), if it has not been:

1. Anticipated by publication in any document any where in the world;
2. Used in the country or prior claimed in an application for patent in India;
3. Part of the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere before the date of filing of patent application or date of priority;
4. In the public domain or that it does not form part of the prior state of art.

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1. Would communication to single member of public amount to disclosure?

Ans: Yes, The communication to a single member of the public without inhibiting fetter is enough as having made it available to the public and thereby invention will fail the test of novelty. (Bristol-Myers Co’s Application, [1969] RPC 146).

2. Would providing details of new invention to sales team amount to disclosure?

Ans: Yes, There is no need even to show that a member of the public has actually seen the document. it was held that a company had published a document by supplying it to its salesmen, since it had been given to them with no restriction on disclosure; indeed it had been put into their hands with the intention that they should make the information available to the public. (Monsanto Brignac’s Application, [1971] RPC 153).
3. Novelty of new invention is resulting from secret and uninformative use?

Ans: No, Patent for Ampicillin compound was denied because it was anticipated by the facts that other party had made small quantity of Ampicillin but it did not know invention nor its advantages. It was held that there was enabling prior art and patent had been anticipated by the secret and uninformative use. *(Bristol-Myers Co’s Application, [1975] RPC 127).*

4. Novelty of Purpose in old products:

Ans: Patent can be granted.

For Ex. Aspirin is used in curing headache, if some one discovers that it is also useful in preventing blood clots or provides relief in other ailments not known till date.
After establishing the novelty, an invention is assessed for inventive step. The invention is not considered to involve an inventive step, if it is *obvious* to a *person skilled in the art* on the basis of *state of art* or otherwise on the date of priority.

*Obvious* means that the invention does not go beyond the normal progress of technology but merely follows plainly or logically from the prior art.

*Person skilled in the art* means any person equipped with skill, background knowledge, qualification and experience relevant to the field.

*State of Art or prior art* includes everything that is made available to public before the date of filing irrespective of mode or language of publication or how widely it is published.
TEST OF INVENTIVE STEP:

Would a person skilled in the art have thought of alleged invention?

If the answer is ‘YES’, then the invention is obvious.

If the answer is ‘NO’, then the invention is non-obvious.

If the person skilled in the art would not reach to the invention by normal exercise of his skill; then the inventor has made a contribution to the prior art which justifies the grant of a patent.

When the invention is just an automatic or obvious extension of prior art, the invention lacks an inventive step, hence not patentable.

Ex. Electric Shavers:
Indicators of Inventive Step:

1. Distance:

The distance between the subject-matter of the invention and the prior-art is to be ascertained. If such distance is large, establishing the inventive step is easier.

Ex. A battery operated car runs on same speed as attained by the cars using conventional fuel.

2. Surprising Effect:

The inventive step may be present if there is a surprising or unexpected effect or result.

Ex. New Gasoline runs car for 50 Kms per litre.
4. Long Felt Need:

If the claim solves a "long felt need", there is a presumption that a claim is not obvious as other inventors might have also tried to solve it but could not provide the solution to fulfill the need.

5. Failure of Others:

If other inventors have tried to solve a problem and were not successful, the claim will likely involve an inventive step.

Ex. Device or mechanism to detect cancer at initial stage.

6. Complexity of Work:

If the work undertaken by the inventor in order to produce the invention was particularly complex, the claim will likely involve an inventive step.

Ex. Successful research for development of human organs.

7. Commercial Success: Commercial success is indicative (but not conclusive) of an inventive step.

Ex. Apple I-pad
3. INDUSTRIAL APPLICATION.

1. If the subject matter is devoid of industrial application it does not satisfy the definition of “invention” for the purpose of the Patent Act.

2. Ordinarily, "Industrial application" is taken in its broad sense as including any useful and practical activities.

3. Invention should be susceptible, capable or potential to be used or made in the industry.

4. The term expressly include agriculture but does not include intellectual or aesthetic activities.
3. INVENTIONS FALLING IN NON PATENTABLE SUBJECT MATTER:

The following are not inventions within the meaning of Patent Act -

1. An invention which is frivolous or obviously contrary to well established natural laws;

   Ex.- Ramar Pillai’s claim to transform water into automobile fuel.

2. An invention, the primary or intended use or commercial exploitation of which could be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment;

   Ex. Some of the rogue scientists come together and create Monster animal by application of biotechnology.

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3. Discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substances occurring in nature;

Ex. Visitor to Amazon jungle finding a new variety of rat or finding other non living substance, which is not known to the world.

4. The mere discovery of a new form of a substance which does not result in the enhancement of a known efficacy of that substance.

5. Method of agriculture or horticulture;

Ex. Process of sowing seeds in the ground or watering of the plants etc.
6. Any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or any animals to render them free of disease or to increase their economic value or that of their products.

Ex. Exclusion is confined to process of medical and veterinary treatment but it does not prevent patenting of surgical, therapeutic or diagnostic substance (such as drugs) or apparatuses or products (such as ECG machines and pace makers etc).

Ex. If an activity of surgery, therapy or diagnostic is to be carried out by or under supervision of doctor using his professional skill, such claimed invention is more likely to fall in exclusion. However if an invention is carried out by an engineer, it is more likely that it may fall out side of exclusion.
7. Plants and animals in whole or any part thereof other than microorganisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals.

Ex. Harvard Onco-mouse case related to patenting of genetically modified mouse injected with carcinogenic gene.
**STEP-1**

Implanting fertilised egg duly injected with Oncogene in foster mice.

**STEP-2**

Mating between mice born to founder mice and normal mice.

**STEP-3**

Offspring born with Oncogene are used for research.

Development of tumour after certain period
The Constitution of the United States of America

Article 1, Section 8, Clause 8

The Congress shall have the power...

to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

The U.S. Patent Act, 35 U.S.C., was enacted by Congress under its Constitutional authority to grant exclusive rights to the inventor to encourage the investment of time and resources into the development of new and useful discoveries.

So any new and useful invention resulted from investment of time and recourses could be patented in USA.

Hence Onco-mouse was granted patent in USA.

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1. In 1989 the examining division refused the patent application of onco-mouse on ground that plant or animal varieties or essentially biological processes for the production of plants or animals are excluded from patent protection.

2. Held that all animals per se are not patentable.

3. On appeal, the board adopted utility approach to weigh negative and positive aspects of the patentatability of animal variety.

4. Patent process took approximately 20 years and patent was granted in 2004.

Section 3 (j) provides that 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.

It is pertinent to note the language employed in the provision states that “animals in whole or any part thereof...including seeds, varieties and species”. The Indian provision places a blanket ban on the patenting of animals per se, including species and varieties. It employs the use of a very high taxonomic class (kingdom animalia) and therefore rodents and all mammals will be hit by this section, and it will not be considered an invention for the purposes of granting a patent.
8. A mathematical or business method or a computer program per se or algorithms;

Ex. Computer programs are per se un-patentable, however if the invention, makes any technical contribution to the prior art, may fall outside of the exclusion. - *Vicom Case*

Ex. In this case, the computer program alerted machine operators when their machines are to be repaired or worn tools to be replaced. Hence solved a technical problem, thus it was patentable. - *Kearney Computer Inventions*.

Ex. Banking operation softwares and other business related computer programs do not make any technical contribution to the prior art. These carry out similar activities, which used to be carried out manually like withdrawal of cash from ATM machine but withdrawal of cash was always done earlier manually, so it is noting new. These enable the user to carry out activities in faster mode and with more efficiency, hence such programs are not patentable.
9. A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;

Ex. Writings, music, works of fine arts, paintings, sculptures, computer programmes, electronic databases, books, pamphlets, lectures, addresses, sermons, dramatic-musical works, choreographic works, etc. are not patentable. However these could be protected under copy right.

10. Scheme or rule or method of performing mental act or method of playing game;

Ex. Method of playing chess or method of teaching.

11. Topography of integrated circuits.

Ex. Layout designs of integrated circuits.
1. Decision to file patent: - To consider benefits that may flow on grant of patent.

2. Filing of an application for grant of patent.

3. Priority date of application.

4. Preliminary examination and search.

5. Publication of the patent.

6. Substantive examination of the patent.

7. Objection from the public.

8. Grant of the patent.
1. Sufficiency of disclosure:

The patent system can not be used to monopolise more than what has been described in sufficient details- L.J Aldous- American Home Products Vs Novartis Pharma.

2. Application for specific claims.

Patent in relation to chemical and biotechnological inventions may claim hundred, thousand or even more compounds. Test is whether application is able to show specific claims.

3. Clarity and conciseness of claims.

Claims must be clear and concise to enable the person skilled in the art to understand the language and also effective in infringement.
4. Enabling description of claim.

Description of claim must specify its technological advancement from prior art. The person skilled in art by application of normal skill should be able to identify the progress in the invention from the presently available prior art.

5. Amendments in the application.

Ensure that there are no amendments in the application. The improper amendments may jeopardise the grant of patent.
OWNERSHIP OF THE PATENTS OF INDEPENDENT RESEARCH:

A. Ownership of patent granted for independent research shall be vested with the inventor or joint inventor of the invention.

B. The joint inventor must have made inventive contribution in the invention.

C. Secretarial work, compiling or managerial assistance shall not qualify to be joint inventor.

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OWNERSHIP OF THE PATENTS GRANTED TO INVENTIONS CREATED IN THE EMPLOYMENT:

A. Patent shall vest with the employer unless otherwise agreed between the employer and the employee researcher.

B. However, following two conditions are essential to prove ownership of patent in favour of employer.

1. Scope of duties:
   Invention was made in employee’s normal or specifically assigned duties.

   Ex- A biotechnologist carrying out invention in the field of biotechnology, the invention shall belong to the employer.

   Ex. Invention made by employees whose duties are limited to mechanical, managerial and non creative job, any patent for invention shall belong to the employee.

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2. Special Obligations:

Where employee’s situation or position in the employment warrant him to act in furtherance of the interest of employer’s undertaking.

Ex. Chief Technical officer, Director( Research), CEO etc created a new invention. If, the invention is granted patent, the patent shall belong to the employer.
1. Exploitation of patent by the owner

2. Licensing of patent to third parties for exploitation.

3. Assignment of patent rights in favour of third parties.

4. Mortgaging the patent for securing the fund.

5. Testamentary disposition.
Thank you