PROFESSIONAL PROGRAMME

UPDATES FOR INTELLECTUAL PROPERTY RIGHTS: LAWS AND PRACTICES

(Relevant for students appearing in June, 2018 examination)

MODULE 3- ELECTIVE PAPER 9.4

Students appearing in June 2018 Examination shall note the following:

Students are also required to update themselves on all the relevant Notifications, Circulars, Clarifications, etc. issued by the Competent Authorities to relate to Law of Intellectual Property Rights in India & Central Government on or before six months prior to the date of the examination.

These Updates are to facilitate the students to acquaint themselves with the amendments in laws relating to Intellectual Property Rights upto December, 2017, applicable for June, 2018 Examination. The students are advised to read their Study Material (2015 Edition) along with these Updates. In the event of any doubt, students may write to the Institute for clarifications at academics@icsi.edu

Guidelines for Examination of Computer Related Inventions (CRIs)

Issued by Office of the Controller General of Patents, Designs and Trademarks, 2017[1]

Contents

[1] Source: Office of the Controller General of Patents, Designs and Trademarks, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India

1. Introduction

1.1 Information Technology has gained special significance in the past two decades. It has emerged as a vital tool for scientific development. The term “Information Technology” encompasses the whole gamut of inputting, storing, retrieving, transmitting and managing data through the use of computers and various other networks, hardware, software, electronics and telecommunication equipment. Industry has witnessed rapid growth due to the computerization of activities which were hitherto carried out manually or mechanically. The advent of the internet and the World Wide Web (www) coupled with the exponential growth of processing and storage power has led to capabilities previously unheard of. The core elements in the application of Information Technology are computers and their peripherals. Computer Related Inventions (CRIs) comprises inventions which involve the use of computers, computer networks or other programmable apparatus and include such inventions having one or more features of which are realized wholly or partially by means of a computer programme or programmes.

1.2 Creators of knowledge in the domain of Computer Related Inventions (CRIs) have consistently endeavored for appropriate protection of their IPRs. The patent regimes have to cope-up with the challenges of processing of patent applications related to computer related inventions and other related technologies. Major patent offices across the world are confronted with the issue of patentability of CRIs. They have developed examination guidelines/ manuals for examination of patent applications from these areas of technology so as to achieve uniform examination practices.

1.3 The aim of this document is to provide guidelines for the examination of patent applications in the field of CRIs by the Indian Patent Office so as to further foster uniformity and consistency in the examination of such applications. The objective of this document is to bring out clarity in terms of exclusions expected under section 3(k) so that eligible applications of patents relating to CRIs can be examined speedily.

1.4 The guidelines discuss various provisions relating to the patentability of computer related inventions. The procedure to be adopted by the Patent Office while examining such applications and the jurisprudence that has evolved in this field has also been discussed. Various examples and

case laws relating to Computer Related Inventions (CRIs) have also been incorporated for better understanding of the issues involved from the perspective of the Patent Office.

1.5 However, these guidelines do not constitute rule making. In case of any conflict between these guidelines and the provisions of the Patents Act, 1970 or the Rules made there under, the said provisions of the Act and Rules will prevail over these guidelines. The guidelines are subject to revision from time to time based on interpretations by Courts of law, statutory amendments and valuable inputs from the stakeholders.

2. Legal Provisions relating to CRIs

2.1 The Patents (Amendment) Act 2002 (No. 38 of 2002) came into effect on 20th May, 2003. It amended the definition of invention[2] under section 2(1)(j) as "Invention" means a new product or process involving an inventive step and capable of industrial application; and as per section 2(1)(ja)[3] "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;

Further, section 2(1)(ac)[4] states that ""capable of industrial application", in relation to an invention, means that the invention is capable of being made or used in an industry;"

Section 2 (1) (l)[5] defines "new invention" in The Indian Patents Act, 1970 as follows:

"New invention" means any invention or technology which has not been anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of patent application with complete specification, i.e. the subject matter has not fallen in public domain or that it does not form part of the state of the art;

2.2 The Patents (Amendment) Act, 2002 also introduced explicit exclusions from patentability under section 3 for Computer Related Inventions (CRIs) as under:

(k) A mathematical or business method or a computer programme per se or algorithms;

(l) A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;

(m) A mere scheme or rule or method of performing mental act or method of playing game;

(n) A presentation of information;

(o) Topography of integrated circuits;

3. Terms/Definitions

The terms/definitions often used while dealing with computer related inventions are summarized hereunder. The terms which are defined in any of the Indian statutes have been construed

[2] Definition of Invention u/s 2(1)(j) under The Patents Act 1970 , after 2002 Amendments
[3] Definition of 'Inventive Step' under The Patents Act 1970, after 2005 amendments
[4] Definition of 'Capable of Industrial Application' under The Patents Act 1970
[5] Definition of 'New Invention' under The Patents Act 1970, after 2005 amendments

accordingly and those which have not been given any statutory definition are normally construed in accordance with their use and ordinary dictionary meaning.

3.1 Algorithm

The term “algorithm” is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used. The Oxford Advanced Learners Dictionary defines “algorithm” as “a set of rules that must be followed when solving a particular problem".

3.2 Computer

The term “computer” is defined in The Information Technology Act, 2000 (No. 21 of 2000) as “any electronic, magnetic, optical or other high-speed data processing device or system which performs logical, arithmetic, and memory functions by manipulations of electronic, magnetic or optical impulses, and includes all input, output, processing, storage, computer software, or communication facilities which are connected or related to the computer in a computer system or computer network.”

3.3 Computer Network

The term “computer network” is defined in The Information Technology Act, 2000 (No. 21 of 2000) as “the interconnection of one or more computers through -

(i) The use of satellite, microwave, terrestrial line or other communication media; and

(ii) Terminals or a complex consisting of two or more interconnected computers whether or not the interconnection is continuously maintained;”

3.4 Computer Programme

The term computer programme has been defined in the Copyright Act 1957 under Section 2(ffc) as "computer programme" means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result;“

3.5 Computer System

The term “computer system” is defined in The Information Technology Act, 2000 (No. 21 of 2000) as “a device or collection of devices, including input and output support devices and excluding calculators which are not programmable and capable of being used in conjunction with external files, which contain computer programmes, electronic instructions, input data and output data, that performs logic, arithmetic, data storage and retrieval, communication control and other functions;”

3.6 Data

The term “data” is defined in the Information Technology Act, 2000 (No. 21 of 2000) as “a representation of information, knowledge, facts, concepts or instructions which are being prepared or have been prepared in a formalized manner, and is intended to be processed, is being processed or has been processed in a computer system or computer network, and may be in any form (including computer printouts, magnetic or optical storage media, punched cards, punched tapes) or stored internally in the memory of the computer;”

3.7 Firmware

The term “firmware” is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used.

The Oxford Advanced Learners Dictionary defines “firmware” as “a type of computer software that is stored in such a way that it cannot be changed or lost”

3.8 Function

The term “function” is defined in the Information Technology Act, 2000 (No. 21 of 2000) as “"function", in relation to a computer, includes logic, control arithmetical process, deletion, storage and retrieval and communication or tele-communication from or within a computer.”

3.9 Hardware

The term “hardware” is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used. The Oxford Advanced Learners Dictionary defines “hardware” as “the physical and electronic parts of a computer, rather than the instructions it follows”.

3.10 Information

The term “information” is defined in The Information Technology Act, 2000 (No. 21 of 2000) as "information" includes data, message, text, images, sound, voice, codes, computer programmes, software and databases or micro film or computer generated micro fiche.”

3.11 Manual

The term “Manual” as hereafter appears means “Manual of Patent Office Practice and Procedure” issued by CGPDTM, as may be amended from time to time, unless there is anything repugnant in the subject or context.

3.12 Per se

The term “per se” is not defined in Indian statutes including the Patents Act, 1970 and hence, for interpretation of this term, the general dictionary meaning is being used.

The general dictionary meaning of “per se” is “by itself” or “in itself” or “as such” or “intrinsically” - to show that you are referring to something on its own, rather than in connection with other things.

3.13 Software

The term “software” is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used. The Oxford Advanced Learners Dictionary defines “software” as “the programs, etc. used to operate a computer”.

4. Examination Procedure

The examination procedure of patent applications relating to CRIs is the same as that for other inventions to the extent of consideration of novelty, inventive step, industrial applicability and sufficiency of disclosure etc. The determination that the subject matter relates to one of the

excluded categories requires greater skill on the part of the examiner and these guidelines focus more on this aspect.

4.1 Novelty

Novelty is the foremost requirement to determine the patentability of any invention. No invention can be held patentable if the subject matter as described and claimed was disclosed before the date of filing, or before the date of priority, as the case may be. The determination of novelty in respect of CRIs is no different from any other field of invention.

The novelty criterion is judged under various provisions of the Patents Act and Rules made thereunder and also based on the procedures laid out in chapter 08.03.02 of the Manual.

4.2 Inventive step

Inventive step is decided in accordance with the provisions of section 2(1)(ja) of the Indian Patents Act, 1970. The determination of inventive step with regard to CRIs is carried out in like manner as in other categories of inventions.

> As per 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;

Hon'ble Supreme Court of India on inventive step:

In Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd[6] it was held that "The expression "does not involve any inventive step" used in Section 26(1) (a) of the Act and its equivalent word "obvious", have acquired special significance in the terminology of Patent Law. The 'obviousness' has to be strictly and objectively judged. For this determination several forms of the question have been suggested. The one suggested by Salmond L. J. in Rado v. John Tye & Son Ltd. is apposite. It is: "Whether the alleged discovery lies so much out of the Track of what was known before as not naturally to suggest itself to a person thinking on the subject, it must not be the obvious or natural suggestion of what was previously known."

"Another test of whether a document is a publication which would negative existence of novelty or an "inventive step" is suggested, as under: "Had the document been placed in the hands of a competent craftsman (or engineer as distinguished from a mere artisan), endowed with the common general knowledge at the 'priority date', who was faced with the problem solved by the patentee but without knowledge of the patented invention, would he have said, "this gives me what I want?" (Encyclopedia Britannica; ibid). To put it in another form: "Was it for practical purposes obvious to a skilled worker, in the field concerned, in the state of knowledge existing at the date of the patent to be found in the literature then available to him, that he would or should make the invention the subject of the claim concerned ?"[7]

In the F.Hoffman la Roche v Cipla[8] case the Hon"ble Delhi High Court had observed that the obviousness test is what is laid down in Biswanath Prasad Radhey Shyam v Hindustan Metal Industries Ltd[9] and that "Such observations made in the foreign judgments are not the guiding

[6] Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)
[7] *Ibid*
[8] F. Hoffmann-La Roche Ltd vs Cipla Ltd., Mumbai Central, ... on 7 September, 2012
[9] (AIR 1982 SC 1444)

factors in the true sense of the term as to what qualities that person skilled in the art should possess. The reading of the said qualities would mean qualifying the said statement and the test laid down by the Supreme Court." Hon'ble High Court further added "From the bare reading of the afore quoted observations of Supreme Court, it is manifest that the Hon'ble Supreme Court has laid down the test for the purposes of ascertaining as to what constitutes an inventive step which is to be seen from the standpoint of technological advancement as well as obviousness to a person who is skilled in the art. It is to be emphasized that what is required to be seen is that the invention should not be obvious to the person skilled in art. These are exactly the wordings of New Patents Act, 2005 u/s Section 2(ja) as seen above. Therefore, the same cannot be read to mean that there has to exist other qualities in the said person like non-imaginary nature of the person or any other kind of person having distinct qualities…….. Normal and grammatical meaning of the said person who is skilled in art would presuppose that the said person would have the knowledge and the skill in the said field of art and will not be unknown to a particular field of art and it is from that angle one has to see that if the said document which is prior patent if placed in the hands of the said person skilled in art whether he will be able to work upon the same in the workshop and achieve the desired result leading to patent which is under challenge. If the answer comes in affirmative, then certainly the said invention under challenge is anticipated by the prior art or in other words, obvious to the person skilled in art as a mere workshop result and otherwise it is not. The said view propounded by Hon'ble Supreme Court in Biswanath Prasad (supra) holds the field till date and has been followed from time to time by this Court till recently without any variance….. Therefore, it is proper and legally warranted to apply the same very test for testing the patent; be it any kind of patent. It would be improper to import any further doctrinal approach by making the test modified or qualified what has been laid down by the Hon'ble Supreme Court in of Biswanath Prasad (supra)."

The "obviousness" must be strictly and objectively judged.[10] While determining inventive step, it is important to look at the invention as a whole. It must be ensured that inventive step must be a feature which is not an excluded subject itself. Otherwise, the patentee by citing economic significance or technical advance in relation to any of the excluded subjects can insist upon grant of patent thereto. Therefore, this technical advance comparison should be done with the subject matter of invention and it should be found it is not related to any of the excluded subjects.[11]

Accordingly, the following points need to be objectively judged to ascertain whether, looking at the invention as a whole, the invention does have inventive step or not:

1. Identify the "person skilled in the art", i.e competent craftsman or engineer as distinguished from a mere artisan;
2. Identify the relevant common general knowledge of that person at the priority date;
3. Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
4. Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

[10] Ibid

[11] IPAB in Yahoo Inc. (Formerly Overture Service Inc.) v. Assistant Controller of Patents and Designs & Rediff.com India Limited (OA/22/2010/PT/CH dated 8th December, 2011)

5. Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of inventive ingenuity?

4.3 Industrial Applicability:

In patent law, industrial applicability or industrial application is a patentability requirement according to which a patent can only be granted for an invention Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd, IPAB in Yahoo Inc. (Formerly Overture Service Inc.) v. Assistant Controller of Patents and Designs & Rediff.com India Limited (OA/22/2010/PT/CH dated 8th December, 2011) which is capable of industrial application, i.e. for an invention which can be made or used in some kind of industry.

It has been defined in section 2(1)(ac) of Indian Patents Act, 1970 as follows:

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

The requirement of workability and usefulness are both connected to the requirement of industrial applicability. If an invention is not workable, it means that it is also not industrially applicable. The patent specification must disclose a practical application and industrial use for the claimed invention wherein a concrete benefit must be derivable directly from the description coupled with common general knowledge. Mere speculative use or vague and speculative indication of possible objective will not suffice.

4.4 Sufficiency of Disclosure:

Grant of patents is quid pro quo[12] to disclosure. It is for the disclosure of invention by the applicant that the patent rights are granted to him for a limited period of time, if all criteria of patentability is fulfilled. The Patents Act, 1970 requires the applicant to specify "what" the invention is and "how" to perform it. The invention shall be described fully and particularly to satisfy the "what" requirement and further the best method of performing the invention known to the applicant to satisfy the "how" requirement. The complete specification should therefore disclose the invention completely to meet the requirement of the Patents Act and should also enable a person skilled in the art to work the invention without any assistance of the patentee or any further experimentation. The description must be unambiguous, clear, correct and accurate. It must not contain any statements which may mislead the person skilled in the art to whom the specification is addressed. While the requirements of sufficiency of disclosure is considered generally in all fields of invention; in cases of patent application concerning computer related inventions (CRIs), these requirements are considered as fulfilled if the specification addresses the following:

4.4.1 Fully and particularly (What):

1. If the patent application relates to apparatus/system/device i.e. hardware based inventions, each and every feature of the invention shall be described with suitable illustrative drawings. If the invention relates to „method", the necessary sequence of steps shall clearly be described so as to distinguish the invention from the prior art with the help of the flowcharts and other information required to perform the invention together with their modes/means of implementation.

[12] "something for something" or "this for that" in Latin

2. The working relationship of different components together with connectivity shall be described.

3. The desired result/output or the outcome of the invention as envisaged in the specification and of any intermediate applicable components/steps shall be clearly described.

4.4.2 Best Method of performing the invention (How):

The best mode of performing and/or use of the invention shall be described with suitable illustrations. The specification should not limit the description of the invention only to its functionality rather it should specifically and clearly describe the implementation of the invention.

4.4.3 Claims:

1. The claims should clearly define the scope of the invention and should take care of unity of invention requirements as defined under section 10(5) of the Patents Act, 1970.

2. The claim(s) of a complete specification should be clear and succinct and should be fairly based on the matter disclosed in the specification.

3. The claims in the field of Computer related inventions need to be construed to ascertain the substance of the claim without wholly relying on the forms and types of the claims.

4.4.4 Form and substance:

The sub-section 3(k) excludes a mathematical or business method or a computer programme per se or algorithms from patentability. While the judgment of mathematical methods or business methods is comparatively easier, it is the computer programme per se or algorithms related inventions that require careful consideration of the examiner. Computer programmes are often claimed in the form of method claims or system claims with some "means" indicating the functions of flow charts or process steps. The algorithm related claims are even wider than the computer programmes claimed by themselves as a single algorithm can be implemented through different

programmes in different computer languages. If, in substance, claims in any form such as method/process, apparatus/system/device, computer program product/ computer readable medium belong to the said excluded categories, they would not be patentable.

Even when the issue is related to hardware/software relation, the expression of the functionality as a "method" is to be judged on its substance. It is well-established that, in patentability cases, the focus should be on the underlying substance of the invention, not the particular form in which it is claimed. The Patents Act clearly excludes computer programmes per se and the exclusion should not be allowed to be avoided merely by camouflaging the substance of the claim by its wording.

4.4.5 Means plus Function:

The claims concerning CRIs are often phrased in means for performing some function such as means for converting digital to analog signal etc. These types of claims are termed as means +function format. The "means" mentioned in the claims shall clearly be defined with the help of physical constructional features and their reference numerals to enhance the intelligibility of the claims. The claims in means plus function form shall not be allowed if the structural features of those means are not disclosed in the specification.

Further, if the specification supports performing the invention solely by the computer program then in that case means plus function claims shall be rejected as these means are nothing but computer programme per se.

Where no structural features of those means are disclosed in the specification and specification supports performing the invention solely by the software then in that case means in the "means plus function" claims are nothing but software.

4.5 Determination of excluded subject matter relating to CRIs:

Since patents are granted to inventions, whether products or processes, in all fields of technology, it is important to ascertain from the nature of the claimed Computer-related invention whether it is of a technical nature involving technical advancement as compared to the existing knowledge or having economic significance or both, and is not subject to exclusion under Section 3 of the Patents Act.

The sub-section 3(k) excludes mathematical methods or business methods or computer programme per se or algorithms from patentability. Computer programmes are often claimed in the form of algorithms as method claims or system claims with some "means" indicating the functions of flow charts or process steps. It is well-established that, while establishing patentability, the focus should be on the underlying substance of the invention and not on the particular form in which it is claimed.

What is important is to judge the substance of claims taking whole of the claim together. If any claim in any form such as method/process, apparatus/system/device, computer program product/ computer readable medium falls under the said excluded categories, such a claim would not be patentable. However, if in substance, the claim, taken as whole, does not fall in any of the excluded categories, the patent should not be denied.

Hence, along with determining the merit of invention as envisaged under Sections 2(1) (j), (ja) and (ac), the examiner should also determine whether or not they are patentable inventions under Section 3 of the Act.

4.5.1 Claims directed as "Mathematical Method": Mathematical methods are a particular example of the principle that purely abstract or intellectual methods are not patentable. Mathematical methods like method of calculation, formulation of equations, finding square roots, cube roots and all other similar acts of mental skill are therefore, not patentable. Similarly mere manipulations of abstract idea or solving purely mathematical problem/equations without specifying a practical application also attract the exclusion under this category.

However, mere presence of a mathematical formula in a claim, to clearly specify the scope of protection being sought in an invention, may not necessarily render it to be a "mathematical method" claim. Also, such exclusions may not apply to inventions that include mathematical formulae and resulting in systems for encoding, reducing noise in communications/ electrical/electronic systems or encrypting/ decrypting electronic communications.

4.5.2 Claims directed as "Business Method": The term "Business Methods" involves whole gamut of activities in a commercial or industrial enterprise relating to transaction of goods or services. The claims drafted not directly as "business methods" but apparently with some unspecified means are held non-patentable. However, if the claimed subject matter specifies an apparatus and/or a technical process for carrying out the invention even partly, the claims shall be examined as a

whole. When a claim is "business methods" in substance, it is not to be considered a patentable subject matter.

However, mere presence of the words such as "enterprise", "business", "business rules", "supply-chain", "order", "sales", "transactions", "commerce", "payment" etc. in the claims may not lead to conclusion of an invention being just a "Business Method", but if the subject matter is essentially about carrying out business/ trade/ financial activity/ transaction and/or a method of buying/selling goods through web (e.g. providing web service functionality), the same should be treated as business method and shall not be patentable.

4.5.3 Claims directed as "Algorithm": Algorithms in all forms including but not limited to, a set of rules or procedures or any sequence of steps or any method expressed by way of a finite list of defined instructions, whether for solving a problem or otherwise, and whether employing a logical, arithmetical or computational method, recursive or otherwise, are excluded from patentability.

4.5.4 Claims directed as "Computer Programme per se": Claims which are directed towards computer programs per se are excluded from patentability, like,

(i) Claims directed at computer programmes/ set of instructions/ Routines and/or Sub-routines.

(ii) Claims directed at "computer programme products" / "Storage Medium having instructions" / "Database" / "Computer Memory with instruction" stored in a computer readable medium.

The legislative intent to attach suffix per se to computer programme is evident by the following view expressed by the Joint Parliamentary Committee while introducing Patents (Amendments) Act, 2002:

> *"In the new proposed clause (k) the words "per se" have been inserted. This change has been proposed because sometimes the computer programme may include certain other things, ancillary thereto or developed thereon. The intention here is not to reject them for grant of patent if they are inventions. However, the computer programmes as such are not intended to be granted patent. This amendment has been proposed to clarify the purpose."*[13]

4.5.5 A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.11 of the Manual.

4.5.6 A mere scheme or rule or method of performing mental act(s) or a method of playing game(s)

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.12 of the Manual.

4.5.7 Presentation of information

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.13 of the Manual.

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[13] Report of the Joint Committee presented to the Rajya Sabha on 19th December, 2001 and laid on the table of Lok Sabha on 19th December 2001.

4.5.8 Topography of integrated circuits

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.14 of the Manual.

5. Replacement of Provisions of Manual

Chapter 08.03.05.10 of the Manual, containing provisions pertaining to section 3(k) of the Patents Act, 1970 shall stand deleted with coming into force of these Guidelines for examination of CRIs.

6. Applicability of Guidelines:

These Guidelines shall be applicable with immediate effect.