

The Patents Act, 1970
Qualifying Examination under section 126 of the Patents Act, 1970
(As amended along with The Patents Rules, 2003)

PATENTS ACT AND RULES

(All questions are to be answered)

(Marks of each question are indicated at the end of the question)

NOVEMBER, 2003

PAPER – I

Time – 2 ½ Hours

Total Marks – 100

- Q.1. Write short notes on any 5 (five) of the following, keeping in view of the Provisions under Patents Act 1970 (as amended) and The Patents Rules, 2003. (Each carries equal marks).
- Invention.
 - Request for examination.
 - Provisional specification.
 - Term of patent.
 - Patent agents.
 - Inter-governmental organization.
 - International application under PCT.
- (15)
- Q.2 State True or False (Answer all questions, each carries equal marks, where it is false, give the reason/correct answer).
- Every application for patent shall be for one invention only.
 - There is a provision under the Patents Act, 1970 (as amended) to extend the term of a patent beyond 20 years.
 - Application for grant of exclusive marketing rights can be filed at the head office of the patent office or at the branch office.
 - It is possible to obtain a world patent.
 - Research institutes or organizations can use patents for research purpose without any liability for infringement.
 - The register of patent agents is kept at the Patent Office, Kolkata only.
 - Invention relating to Atomic Energy is not patentable.
 - Every application for patent whether provisional or complete, shall be made in form 2.
 - For Nationals (natural persons) of India the basic and designation fees are reduced by 75% payable to IB of WIPO.
 - No drawing or sketch, which would require a special illustration of the inventions, shall appear in the text of the specification itself.
- (20)
- Q.3 Fill in the blanks (answer all questions, each carries equal marks)
- The qualifying marks for each written paper and for the viva voce examination for Patent Agent shall be _____ % and _____ % respectively, and a candidate shall be declared to have passed the examination only if he/she obtains an aggregate of _____ % of total marks.
 - The patent agent should pay the continuance fee every year on or before _____ in each year.

- c. Application for grant of exclusive marketing right should be filed at the _____ in form _____.
- d. PEA under PCT stands for _____.
- e. Application for the grant of product patent for drug can be filed under Section _____ of the Patents Act, 1970 (as amended).
- f. The date of every patent shall be the date of the filing of the _____.
- g. _____ fees shall be payable in respect of a patent of addition.
- h. The maximum number of designation fees payable under PCT is _____.
- i. The basic fee is USD _____, if the international application contain not more than _____ sheets.
- j. The request for examination of application for patent under section 11B and rule 24(1) should be filed on form _____.

(20)

Q.4 Answer any 5 (five) questions of the following (Each carries equal marks).

- a. What is Register of Patents?
- b. Name the PCT fees with the amount an Indian applicant is required to pay for filing an international application for patent under PCT at the Patent Office as Receiving Office (RO/IN).
- c. What is an official Gazette?
- d. A note on the time for putting an application in order of acceptance.
- e. What do you understand by the term "Exclusive Marketing Rights" as per the Act?
- f. A note on the advantage of the PCT.

(15)

Q.5. State the period (including extension if available) under the Patents Act, 1970 (as amended) and/or under the Patents Rules, 2003 for performing the following acts. Quote relevant sections and/or rules and number of the prescribed form if any with fees. [Answer any 5 (five), each carries equal marks]

- a. For filing a request for examination of an application for patent.
- b. For a request for termination of compulsory licence.
- c. For filing an opposition to the grant of a patent after acceptance of the complete specification notified in the Official Gazette.
- d. For an application for the restoration of a patent.
- e. For declaration as to inventorship of the invention.
- f. For a request for sealing a patent.

(15)

Q.6. Fill in the blanks. (Answer all, each carries equal marks)

- a. The fee for filing a complete specification after provisional specification is Rs. _____. (750 / No fee / 3,000)
- b. For application for registration as a patent agent under rule 109 or 112 is Rs. _____. (1,000 / 200 / 500)
- c. For transmittal fee for the international application for patent under PCT, the amount of fees in rupees for natural person(s) is Rs. _____. (750 / 1,000 / 1,500)

- d. For application for permission for applying a patent outside India for other than natural person(s) is Rs. ----- . (1,000 / 1,500 / 3,000)
- e. Full form of EPO is _____.
- f. Full form of ISA under PCT is _____.
- g. For filing an extension of time for one month for filing a complete specification under sec 9(1) by a natural person is Rs..... (250 / 500 / 1,000)
- h. The fees for filing a declaration as to inventorship under rule 13(6) is Rs. ----- . (750 / No fee / 3,000)
- i. The fees for filing a statement and undertaking under section 8 is Rs. ----- . (750 / No fee / 3,000)
- j. The term of every patent granted after the commencement of the Patents (Amendment) , Act 2002 shall be ----- years. (7 / 14 / 20)

(15)

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The Patents Act, 1970
Qualifying Examination under Section 126 of the Patents Act, 1970
(As amended and along with the Patents Rules, 2003)
Drafting and interpretation of Patent specification and other Documents.
(All questions are to be answered)
(Marks of each question are indicated at the end of the question)

NOVEMBER, 2003

Paper -- II
Time – 2 ½ Hours

Total Marks – 100

Q. 1. Answer any 5 (five) questions (each question carries equal marks)

- a) Your client's application for Patent has been filed on April 01, 2003. Now due to introduction of section 11B, a request for examination is necessary to proceed further with the application, moreover publication of application under section 11A is also due. In view of the above write an intimation letter to your client with the information about various proceedings under the Act.
- b) Your client, a pharmaceutical company from Mumbai who has filed an application for Patent under Section 5 (1) of the Act, is now accepted and notified in the official Gazette. The term of patent is now 20 years from the date of filing in place of 7 years from the date of patent. Advise your client about the information and further requirements.
- c) Your associate from Canada informs you that their client is interested in filing a national phase application for patent in India. Advise your associate regarding requirements of the Patent Office for filing the same in India.
- d) Your client M/s. ABC a partnership firm whose partners are Mr. Amar, Mr. Babbar and Mr. Chunilal, 75, Cross road, Mumbai informs you that they are interested in filing an international application for patent under PCT as first filing. Advise you client regarding the time period, various fees, necessary documents and other requirements under PCT for filing the same.
- e) You have received the first statement of objections from the Patent Office for application for Patent of your client stating amongst other objections that "the alleged invention relating to atomic energy is not patentable under section 4 of the Act". Write a letter to your client explaining the consequences thereof and further actions, which you are likely to take on the same.
- f) Your client Mr. K.K. Rao from Hyderabad informs you that he wishes to file an application for patent outside India and enquires about the procedure for obtaining prior permission of the Govt. of India. Write a letter advising your

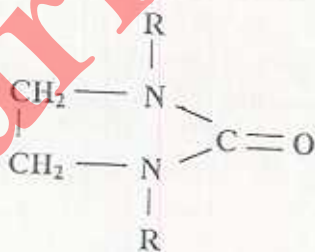
client explaining about the reintroduction of the section 39 with effect from 20.05.2003 by the Patents (Amendment) Act, 2002 and the contents thereof, with action to be taken.

(55)

Q.2. Your client "SONJA INCORPORATED" a corporation and existing under the Laws of the state of Minnesota, USA, of 251 Outer Road, Minneapolis, Minnesota 777, USA requests you to send a General Power of Authority (GPA) under the Patents Act, 1970 for his authorization for protecting all of their inventions on your name. Prepare the required GPA under the Act, you may send to your client.

(15)

Q.3. Your client M/S XYZ limited, 2-5 Kasumigaseki 3-chome, Chiyoda-KU, Tokyo, a Japanese company, furnishes the following information:
Our R & D unit has developed an improved process for the preparation of 1,3-dialkyl-2-imidazolidinone (DMI) which is a very useful substance as a polar, nonprotonic solvent and forms complex with many inorganic salts. The product DMI is an excellent solvents for various high molecular weight substances and also used as solvent for many organic reactions.
The production of 2-imidazolidinone by reacting ethylenediamine with urea has so far been industrially possible, but it is not easy to dialkylate 2-imidazolidinone into 1,3-dialkyl-2-imidazolidinone. Further in the case of the production of DMI by reacting N,N'-dimethylethylenediamine with urea, yield is so low that the process has been commercially unsatisfactory.
The product is represented by the formula:



Where R represents $-\text{CH}_3$, $-\text{C}_2\text{H}_5$, $-\text{C}_3\text{H}_7$ or $-\text{C}_4\text{H}_9$

So the object of the invention is to provide improved process for producing 1,3-dialkyl-2-imidazolidinone directly from N,N'-dimethylethylenediamine and urea with a high yield having prolific commercial productivity.

A specimen example of the process is given below, but the invention is not limited to that only.

Example:

into a 500 ml steel autoclave were fed N,N' -dimethylethylenediamine (88.1g, 1.0 mol) and urea (60.1g, 1.0 mol). The reaction temperature was raised upto 210°C uniformly over about 30 minutes and reaction was carried out at the temperature for 3 hours. The pressure inside the system reached $14.5 \text{ kg/cm}^2\text{G}$ as the highest pressure. After completion of the reaction, the reaction fluid was distilled and about $2/3$ of the quantity of DMI was distilled off, crystals deposited in the still residue was filtered off, followed by successively distilling the filtrate to obtain a DMI fraction (192.7g) having a purity of 99.5% according to gas chromatography (yield: 80.8%).

All the above relevant features of the invention stated should be protected by patent in single application.

Draft a complete specification for the process of above said invention to be filed in India.

OR

Your client M/S ABC limited, Im Stadtsfeld 90, 4370 Dorsten , a German company, furnishes the following information:
Our company has invented a new aerating device for liquid to be used for the purpose of floatation of coal and other materials requiring this kind of processing. It is known that the device of this type are used for floatation in order to separate the solid particles in a slurry from one another.

The solid particles which are less easily wetted become attached to air bubble which are generated in aerating devices by means of gasifiers, injectors or reactors. The solid particles attached to the air bubbles are usually discharged over the edge of the separating or floatation vessel. To facilitate the attachment of solid particles to the air bubbles during floatation, it is desirable to keep the size of air bubbles as small as possible in all the aeration devices which results in high consumption of energy and having low degree of selectivity for the attachment.

The invented device dispenses with the above disadvantages. The aeration device as per the invention allows higher degree of selectivity and in the process the specific energy consumption is reduced.

The inventive device is illustrated in the Fig.1 of the drawing in which:
Reference letters represent as under:

- 1.....connecting flange to slurry line.
- 2.....distribution cone.
- 3.....lower part of the housing.
- 4.....air chamber with annular air outlet.
- 5.....flange.
- 6.....dispersing stage.

- 7.....upper part of the housing.
- 8.....helical fin for rotational flow.
- 9.....holding device.
- 10. ...central section.
- 11.....annular channel.
- 12.....exit point from the housing.
- 13.....spacer rings to vary gap width of air outlet.
- Q₁.....inlet diameter of the aeration device.
- Q₂.....maximum diameter of distribution cone.
- Q₃.....constant gap width.

The aerating device of the invention is in the form of an annular injector having a housing (lower part-3 and upper part-7) through which the liquid flows and in which a central section (10) with fins is arranged to form an annular channel (11) together with the housing. The annular channel leads to air outlet (4) located in the wall of housing; the cross section of the annular channel is narrowest at the point of air outlet openings which abruptly widens and merges into the mixing and dispersing stage of the device extending up to the outlet from the housing.

The speciality of the invention lies with the fact that the fins attached to the central section or to the upper section of the housing superimposes a rotational flow on the axial flow of the slurry-air mixture which in turn is advantageous in facilitating the attachment of the particles of solids to the air bubbles leading to reduction in energy consumption.

Draft a complete specification, for your client including statement of claims (drawing enclosed).

(30)

(TOTAL PAGES – 5, INCLUDING THE DRAWING)

(End)