

PATENT LAW

FALL 2019

LOYOLA LAW SCHOOL HABER & HUGHES

Take Home Examination

Directions, conditions, and your professional commitments

This is a twenty-four (24) hour, take-home examination. You have 24 hours from the time you pick up this examination at the Office of the Registrar to return your completed examination answer back to the Office of the Registrar.

Remember that your submitted examination answer MUST have only your LLS ID Number and shall not have your name on any pages. Please make sure that the examination answer has page numbers, preferably with your LLS ID Number AND the page number in the footer on each page.

Once you have received this examination, you may not discuss it with (1) anyone prior to the end of the examination period or (2) at ANY time with any student in the class who has not taken it. You may NOT collaborate on the exam.

This is an open book, take home examination. Professors Haber and Hughes permits you to use any and all inanimate resources. However, you should NOT do additional factual research. The examination's fact patterns may be based on real circumstances or disputes, but changed into *hypotheticals*. Accordingly, you should treat the "facts" as limited to what you are told in the examination.

By turning in your answers you certify that you did not gain advance knowledge of the contents of the examination, that the answers are entirely your own work, and that you complied with all Loyola Law School rules. Violation of any of these requirements will lead to discipline by the Academic Standing Committee.

The Examination consists of three parts. Part I is a set of true/false questions worth 20 points; Part II is a set of multiple choice questions worth 20 points; and Part III is an essay problem with 60 points. The essay answer to Part III has a 2,000 word limit.

GOOD LUCK

I. TRUE/FALSE QUESTIONS
(20 points maximum)

This part of the exam is worth 20 points. Each answer is worth 2 points. There are 11 questions, so in the same spirit as the LSAT and other standardized tests, you can get one (1) wrong and still get a maximum score (20 points) on this section.

Please provide your answers to this section as a single column series, numbered 1 to 11, with “T” or “F” beside each number, i.e.

- 30. True
- 31. False
- 32. False
- 33. True

The answers to this Part I along with answers to Part II should come BEFORE your Part III essay answer, which should start on a separate page.

If you think a question is unclear, you may write a note at the end, but only do so if you believe there is a fundamental ambiguity in the question.

- 01. Since 1998, U.S. patent law has provided that patent applications are to be published twelve (12) months after filing unless the applicant certifies that the invention will not be the subject of any foreign or international applications for patent protection.
- 02. In considering M. Lui’s October 1998 presentation of the invention, the court in *In re Klopfenstein* (Fed. Cir. 2004) concluded that the presentation was not a “printed publication” for purposes of §102 because “no copies of the presentation were disseminated . . . and the presentation was never catalogued or indexed in any library or database.”
- 03. In *Juicy Whip, Inc. v. Orange Bang, Inc.* (Fed. Cir. 1999), the court reasoned that the statutory utility requirement in patent law

can be satisfied by the “specific benefit” that “one product can be altered to make it look like another.”

04. In the court-created exclusion of “laws of nature, natural phenomena, and abstract ideas” from patentable subject matter, “abstract ideas” are limited to “pre-existing, fundamental truths that exist in principle apart from any human activity.”
05. A patent claim that uses “comprising” (as in “An invention *comprising* elements A, B, and C . . .”) is considered an “open” claim that covers any embodiment of the invention having A, B, and C whether or not the embodiment has additional elements.
06. In *Diamond v. Diehr* (Supreme Court, 1981), the Court held that a computer-implemented process for curing rubber was patent eligible under §101 because, while it used a well-known mathematical equation, that equation was used in a process designed to solve a technological problem in a conventional industry.
07. An element (or limitation) in a patent claim cannot be subject to the means-plus-function analysis of §112(f) [previously §112, paragraph 6] unless the word “means” is used in that element (or limitation).
08. In *Phillips v. AWH Corporation* (2005), the Federal Circuit acknowledged the principle that claims should be construed to preserve their validity, but did not endorse making validity analysis a regular component of claim construction.
09. In *Global-Tech Appliances v. SEB* (2011), the Supreme Court held that willful blindness can fulfill the knowledge requirement under §271(b) and that “deliberate indifference to a known risk” of patent infringement is “willful blindness.”
10. Section 112 of the Patent Act requires a patent to “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter” of the application; this “definiteness” standard is met as long as the claim is “amenable to construction” and is not “insolubly ambiguous.”

11. In light of the Supreme Court’s recent decisions in patent law, the Federal Circuit’s “machine-or-transformation” test remains “a useful and important clue” and a helpful “investigative tool” for determining whether some claimed invention is a patentable process under §101.

COMMENTS on FUNDAMENTAL AMBIGUITIES? Note them with your T-F answers!

II. MULTIPLE CHOICE QUESTIONS

(20 points maximum)

This part of the exam is worth 20 points. Each answer is worth 3 points. There are 8 questions, so in the same spirit as the LSAT and other standardized tests, you can get one (1) wrong and still get a maximum score (20 points) on this section.

Please provide your answers to this section as a single column series, numbered 1 to 11, with your answer beside each number, i.e.

30. D
31. B
32. A
33. C

The answers to this Part II, along with answers to Part I, should come BEFORE your Part III essay answer, which should start on a separate page.

If you think a question is unclear, you may write a note at the end, but only do so if you believe there is a fundamental ambiguity in the question.

01. Which of the following would not be acceptable evidence to establish the nonobviousness of an invention, including “secondary considerations” that can be a “helping hand” to a court?

- [A] Extensive and numerous “differences between the prior art and the claimed invention”
 - [B] Immediate commercial success of the claimed invention
 - [C] Extensive promotional advertising by the owner of the claimed invention.
 - [D] The combination of elements in the claimed invention produces results unexpected by persons having ordinary skill in that field of technology . . .
 - [E] Both “B” and “C”.
02. On 1 March 2017, Irina Inventor offers to sell what she says is a new kind of water-efficient faucet which she calls “faucetX.” She includes schematic drawings of the faucetX design in the written offer to sell; the same drawings, without editing, will be used by Irina in her patent application and by her manufacturer in producing faucetX.
- On 1 June 2017, Walmart orders 50,000 faucetX units for delivery by 1 December 2017.
- On 4 July 2017, Irina completes the fully-functional prototype of faucetX.
- On 6 September, Irina’s contract manufacturer begins producing faucetX.
- The first shipment of faucetX to Walmart is made on 15 October 2017.
- Under the rule established in *Pfaff*, at what point is the faucetX invention most likely “on sale” for purposes of the §102 on sale bar?
- [A] 1 March 2017
 - [B] 1 June 2017
 - [C] 4 July 2017
 - [D] 6 September 2017
 - [E] 15 October 2017
03. Which of the following does not constitute intrinsic evidence of the meaning of a patent claim?
- [A] The patent specification.
 - [B] Relevant entries in technical dictionaries.

- [C] The prosecution history of the patent.
 - [D] The language and word choices in the claim being analyzed as well as the other claims in the patent.
04. When determining the definiteness of a patent's claims under §112, which of the following is false?
- [A] A claim is indefinite if it "fails to inform, with reasonable certainty, those skilled in the art about the scope of the invention."
 - [B] In assessing a claim's definiteness, definiteness is measured from the viewpoint of a person skilled in the art at the time the patent was issued.
 - [C] In assessing a claim's definiteness, the claim is to be read in light of the patent's specification and prosecution history.
 - [D] The definiteness requirement "mandates clarity, while recognizing that absolute precision is unattainable."
05. Which of the following inventions would fail to qualify as patentable subject matter under 35 U.S.C. §101? [Do not consider any other conditions for patentability]
- [A] A new material for blankets that combines synthetic and natural materials in a weave with unexpected heat retention.
 - [B] A new automated process for deheading and gutting salmon more cleanly (leaving less digestive track remnants).
 - [C] A deheaded and gutted salmon pursuant to the process in "B" with measurably less digestive track remnants than salmon gutted by traditional methods.
 - [D] Improved safety equipment for window washers.
 - [E] None of the above.

06. Which of the following could be a valid defense against a claim of induced infringement under §271(b)?
- [A] Patent counsel for defendant reached a good faith determination that the plaintiff's patent is invalid.
 - [B] The input the defendant is supplying to the allegedly infringing activity or product is a staple article of commerce with substantial non-infringing uses.
 - [C] The defendant has initiated an Inter Partes Review at the U.S. Patent and Trademark Office to challenge the validity of the patent.
 - [D] Patent counsel for defendant reached a good faith determination that the allegedly infringing activity or product does not actually infringe on the plaintiff's patent when those patent claims are properly construed.
 - [E] All of the above.
07. Irina Inventor and Jessica Genius each independently and separately invented a new garlic press. They did not communicate with each other and have never met. Jessica filed for an U.S. patent on 30 March 2015 and the USPTO granted the patent ("the '123 patent") on 4 May 2017. Because Jessica also applied for patent protection at the European Patent Office, her U.S. application was published on 30 September 2016. Irina filed her patent application on 10 October 2016. There is neither a common assignee between Irina and Jessica nor an obligation for them to assign their inventions to a common assignee. Jessica's application cannot benefit from a right of priority to any filing date before 30 March 2015. Which of the following provisions of 35 U.S.C. §102 sets out the prior art on which Irina's patent application will be rejected.
- [A] §102(a)
 - [B] §102(b)
 - [C] §102(c)
 - [D] §102(g)
 - [E] None of the above

08. Constructive reduction to practice occurs when _____
- [A] The inventor completes a working model of the invention.
 - [B] The invention is fully described in a published scientific journal in a way that a person having ordinary skill in the art could practice the invention without undue experimentation.
 - [C] The inventor discloses the invention to her patent agent and/or to the technology licensing office of her institution or company.
 - [D] A patent application which meets the requirements of 35 U.S.C. § 112 is filed at the USPTO.
 - [E] All of the above.

II. Essay Question
(60 points maximum)

This part of the examination has ONE essay problem. Please make sure that you use 1.5 line and include a header or footer on each page that has both the page number and the exam number.

Please make sure that the essay starts on A SEPARATE PAGE from Parts I and II. Be sure to include a **total** word count for the essay.

You should NOT do additional factual research for the question; additional factual research is more likely to be confusing and detrimental to your grade; it detracts from time spent on legal analysis. The essay's fact patterns may be based on real circumstances, but changed into a **hypothetical** and you should treat the "facts" as limited to what you are told in the examination. Of course, you may identify additional facts needed to analyze the issues fully.

CLEAR-A-SKIN V. MUELLER AMERICA
[no more than 2,000 words]

Maria Van Brittan is an avid hiker and outdoors person; in the summer months, she often gets rashes from poison ivy as well as poison oak and poison sumac – all are caused by an allergic reaction to an oily resin called urushiol. For Maria, these rashes can be very itchy and last for weeks.

Maria also has several tattoos from her younger, more reckless days as an associate of an outlaw motorcycle gang. These tattoos are mainly on her arms and lower legs.

In early July 2006, Maria came back from a long hike and, within 24 hours, came down with poison ivy rashes all over her lower left leg and left arm. Frustrated with treatments available at the local drugstore - like Calamine lotion - Maria decided to consult the large collection of homeopathic medicine books she had recently inherited from her mother (augmented by further recent book gifts from friends).

Although Maria has no training in medicine and knows nothing about dermatology, she thinks herself a pretty clever person and decided to experiment with different combinations of suggested poison ivy treatment ingredients, adding - based on her intuitions and some randomness - additional ingredients.

Maria eventually settled on five ingredients - lemon oil, beeswax, witch hazel, goldenseal, and baking soda. Maria mixed these ingredients in equal parts and grinded them together in a mortar and pestle for exactly 27 minutes. The end-product was a paste that smelled great!

Maria applied a glob of the paste to her left leg and arm. It was immediately soothing and substantially reduced the itchiness. Maria continued to apply the paste to her left leg and arm, 3 times a day, for the next 5 days. On the fifth day, 15 July 2006, Maria noticed that the tattoos on her lower left leg and left arm were visibly lighter; one tattoo was almost gone.

Amazed by this development, Maria experimented further with her paste, trying to improve its consistency. On 30 August 2006, she finally produced what she considered to be the ideal compound, consisting of equal parts of the five ingredients, ground together; heated for exactly 32 minutes at 150°C; then subjecting the resulting gritty paste to a liquid nitrogen bath and subsequent fine-particle grinding to reduce the particle size and create a creamy mousse-like texture. (Maria has an interesting home workshop!)

Maria prepared a large batch of what was now a cream, poured it into several jars, and took it to her monthly "Former Outlaw Biker Gang Survivor Group" meeting. On the way over, she thought about how to explain the product and what to call it; she settled on "Clear-a-Skin" as a tentative name.

At the meeting, she asked for anyone who wanted to remove their tattoos painlessly to stay after the meeting - about 10 people

stayed. She swore this group to secrecy and asked each person to try the cream. She explained, “I call it ‘Clear-a-Skin’ and it’s completely safe – it’s just a unique combination of things you might apply to your skin – lemon oil, beeswax, witch hazel, goldenseal, and baking soda – mixed in equal portions. Try it – you’ll see: it removes tattoos painlessly! I discovered this quite by accident trying to relieve horrible rashes from poison ivy.” She asked each person who wanted to try the cream to give her a dollar – to show they were serious about trying it. When asked how much to use, she said “effective dosage probably varies. Just use however much you think is needed, but please keep daily notes!” Although she told them what the cream contained, she did not tell them the particular method she used to make it (described above).

The cream removed tattoos on all 10 of the participant group. On 6 September 2006, one of the 10 participants from the group, James Mueller, emailed his brother in London, Dr. Julian Mueller, the president of Mueller Beautiful, a small British consumer products company. James gave Julian a verbatim account of what Maria had shared with the group. Dr. Mueller immediately went to work in his laboratory with the ingredients he knew to be in Clear-a-Skin. By trial and error, he quickly was able to produce a cream that performed satisfactorily by mixing equal parts of the five ingredients for 60 minutes at 130°C and subjecting the concoction to a liquid nitrogen bath and fine particle grinding. Mueller Beautiful began selling the cream in Britain on 15 October 2006.

Meanwhile, back in the California, Maria was happily using Clear-a-Skin to remove all of her tattoos. On 15 December 2006 Maria settled on the best dosing regimen through her own testing and by discussing it further with some of her early testers. She discovered that the best results were obtained by applying at least one teaspoonful of the cream per 3 inch square tattoo 3 times a day for at least 5 days. On 3 June 2007, Maria saw an advertisement for an invention promotion company on late-night television. It then occurred to her that she might be able to make a lot of money with Clear-a-skin if she patented it. Not wanting to incur the expense of a patent attorney, Maria purchased a copy of the book *Patenting for Dummies* and used it to prepare an application on Clear-a-Skin herself. This she did in her spare time, ultimately filing the application with the U.S. Patent and Trademark Office (“USPTO”) on 20 October 2007.

The application described Maria's complete process for making Clear-a-Skin (including the liquid nitrogen bath and fine particle grinding steps) and disclosed that while the best product was achieved by mixing the 5 ingredients for 32 minutes at 150°C, good results could also be achieved as long as the temperature was between 140°C and 160°C and the product was mixed for between 20 and 40 minutes. The application also disclosed that while the best way to achieve tattoo removal was to apply at least one teaspoonful of the cream per 3 inch square tattoo 3 times a day for at least 5 days, good results could also be obtained by applying less of the cream 5-6 times a day for 3 days. The application had 3 claims:

Claim 1. A composition for painlessly removing tattoos comprising: equal or near equal parts of lemon oil, beeswax, witch hazel, goldenseal, and baking soda.

Claim 2. A method of painlessly removing tattoos comprising: applying an effective amount of a mixture of equal or near parts of lemon oil, beeswax, witch hazel, goldenseal, and baking soda to the affected area approximately 3 times a day for at least 5 days to achieve desired results.

Claim 3. A method of preparing a composition for painlessly removing tattoos comprising: mixing equal or near parts of lemon oil, beeswax, witch hazel, goldenseal, and baking soda to form a paste; subjecting said paste to a liquid nitrogen bath, and aerating said paste through fine particle grinding to create a creamy mousse-like texture.

After filing her patent application, Maria was able to obtain venture capital financing for the manufacture and marketing of Clear-a-Skin and began selling the product in November 2007. The cream was an instant commercial success. Several medical journals published articles about the surprising potency of Maria's composition.

The USPTO examiner handling Maria's patent application was sympathetic to the plight of unwanted tattoos - having two siblings who

had gotten themselves out of gangs. The patent examiner did not cite any prior art against any of Maria's claims (Maria did not provide the USPTO with any prior art either) but he rejected claim 2 under 35 U.S.C. 112, paragraph 1 for indefiniteness, stating that it was unclear what the applicant meant by "an effective amount." Maria responded by pointing out that complete instructions on how to make and use the composition were included in the specification but, in order to expedite allowance of the application, she amended claim 2 as follows:

Claim 2 (Amended). A method of painlessly removing tattoos comprising applying at least one teaspoon of a mixture of equal or near parts of lemon oil, beeswax, witch hazel, goldenseal, and baking soda to a 3 inch square affected area approximately 3 times a day for at least 5 days to achieve desired results.

The examiner then allowed all three claims and U.S. Patent No. 8,444,222 ("the '222 patent") issued to Maria on 1 August 2009. (The application had already been published by the USPTO on 20 April 2009.) To celebrate the issuance of her patent and the success of Clear-a-Skin, Maria took an extended vacation in the Malaysian rainforest. When she returned months later - in November 2009 - she learned that sales of Clear-a-Skin had dropped 50% due to the introduction of a competing product called "Mueller's Miracle Cream" into the U.S. market on 5 May 2009. Mueller's Miracle Cream seems to be identical in composition and effect to "Clear-a-Skin; is made in the UK by Mueller Beautiful; and is imported into the US and sold by Mueller America, Inc., Mueller Beautiful's newly established U.S. distributor. Maria instructed her counsel to send a letter (and a copy of the '222 patent) to Mueller America on 15 November 2009, informing Mueller America of the '222 patent and demanding that it immediately cease and desist from importing or selling its product in the U.S. or be prepared to be sued for direct and indirect infringement.

Mueller America replied saying that "we do not believe that we infringe the '222 patent, directly or indirectly, because our package directions instruct purchasers to apply no more than 1/2 teaspoon of the product per 3 inch square area 5 times per day for 3 days, our composition is different from that of the '222 patent because it includes aloe vera as an additional ingredient, and our method of preparing the product is

different to that claimed in the '222 patent in both mixing time (60 minutes) and temperature (130°C). In addition, the '222 patent is invalid because the composition described in the patent is the same as that in a well-known treatment for antique wood furniture that has been made and sold in the U.S. for 20 years. Moreover, it would have been obvious to use fine particle grinding and a liquid nitrogen bath to reduce the particle size of the compound." Mueller America included a printed publication dated March 1990 which advertised "Regency" wood treatment and disclosed the composition of "Regency" wood treatment as being equal parts of lemon oil, beeswax, witch hazel, goldenseal, and baking soda (manufactured by a company in Portland, Maine, USA). Also included was a British journal article dated September 1990 that described the well-known use of fine particle grinding to reduce the particle size of a wide variety of pastes and other mixtures.

Undaunted, on 1 December 2009 Maria sued Mueller America for direct and indirect infringement based on its conduct starting August 2009 (when the '222 patent issued) and continuing even after receiving the cease and desist letter. Mueller America counterclaimed for a judgment of non-infringement and invalidity of the '222 patent.

You are a clerk for the district court judge hearing the case, Mona Jaconde. Judge Jaconde has asked you to prepare an informal memorandum - of absolutely no more than 2,000 words -- on the following:

- [1] potential validity issues for the three '222 claims (original claims 1 and 3 and amended claim 2).**
- [2] Assuming for each patent claim that it is found valid, whether Mueller America infringes that claim, directly or indirectly.**

You need not discuss issues associated with 35 U.S.C. §§ 101 or 112.

Remember, Judge Jaconde stops reading at 2,000 words.

END OF EXAM