Patent & Trade Secret Law Final Examination
IPSE 2000
Prof. Jepson

Student ID No. _____

Instructions:

Put your Student ID number on this booklet and on the Scantron™ answer sheet. Turn in both.

This Exam is CLOSED BOOK. You may NOT use the MPEP, course materials, notes, outline, or anything else.

This examination is to be taken at the time and place regularly scheduled.

This Examination is worth 100 points and has two parts: there are 25 Multiple Choice questions for 50 points; there are 5 Short Answer questions worth 50 points. You may divide your time anyway you wish.

Multiple Choice:

Fill in completely the bubble on your Scantron™ answer sheet that you believe corresponds to the BEST choice. "Best" means the choice Prof. Jepson would give.

Use only a No. 2 pencil to fill in the bubbles. Make no stray mark. Erase completely. Incomplete erasures and stray marks are counted as incorrect responses by a machine. No one will check this for you. THIS IS YOUR RESPONSIBILITY.

Your score will be the number correct. There is no penalty for guessing.

If you wish to explain an answer, do so in this booklet.

Good Luck!

1) A key feature that distinguishes equivalents under § 112, ¶ 6 from equivalents under the doctrine of equivalents is that § 112, ¶ 6 equivalents must __1__ of the disclosed structure, while equivalents under the doctrine of equivalents need only __2__,
   a) (1) perform the identical function; (2) perform a substantially similar function
   b) (1) perform a substantially similar function; (2) perform the identical function
   c) (1) be equivalents; (2) be similar
   d) (1) have existed at the time the application was filed; (2) be equivalent at the time of infringement
   e) (1) have been equivalent at the time the application was filed; (2) be equivalent at the time of infringement

2) When the relevant material facts are not genuinely in dispute, the question of literal infringement, which is ordinarily __1__, collapses into the question of ___2___ and is thus amenable to summary judgment because it's a question of __3__.
   a) (1) for the jury; (2) claim construction; (3) law
   b) (1) for the court; (2) infringement under the DOE; law
   c) (1) for the jury; (2) claim construction; (3) fact
   d) (1) for the court; (2) prosecution history estoppel (PHE); (3) law
   e) (1) for the jury; (2) prosecution history estoppel (PHE); (3) fact

3) The following passage from *Kewanee v. Bicron*:
   > "The holder of a trade secret would not likely share with a manufacturer who cannot be placed under binding legal obligation to pay a license fee or to protect the secret. The result would be to hoard rather than disseminate knowledge."

   relates to transaction costs explained generally by
   a) Arrow's Paradox
   b) The Free Rider Problem
   c) The Tragedy of the Commons
   d) The Prisoner's Dilemma
   e) The Paredo Principle

4) Elizabeth may have an application in Japan that is a __1__ application to her applicant for a patent in the United States. In that case, the contents of the specification may become __2__ against some other applications for patent before Elizabeth's United States patent issues.
   a) (1) corresponding; (2) 102b prior art
   b) (1) divisional; (2) 102e prior art
   c) (1) continuing; (2) 102e prior art
   d) (1) parallel; (2) 102b prior art
   e) (1) related; (2) 102c prior art

5) Nike discovers that its sales team will disclose a new sneaker line at a Las Vegas trade show on July 15, 1999. Management orders the lawyers to get on file in Japan - one day before the trade show - a patent on the design of the sneakers. Management reasons that the filing in Japan will give Nike another year before needing to file in the United States. If priority to the Japanese application is claimed in a United States design application filed July 14, 2001, the patent will be
   a) Valid under § 119
   b) Valid under GATT and TRIPS
   c) Invalid under § 102(b)
   d) Invalid under § 102(d)
   e) Invalid under § 102(g)

6) In their Supreme Court Briefs, both parties in *Pfaff* v. *Wells Electronics* quoted patent policy arguments from the contemporary writings of this federal judge:
   a) Justice Douglas
   b) Benjamin Cardozo
   c) Frank Easterbrook
   d) Learned Hand
   e) Samuel L. Jackson

7) In the *Toro* v. *Ariens* case, claim 36 (see paraphrase below) was invalid.

> 36. A single stage snowthrower comprising:
> (a) a housing * * *;
> (b) a rotatable snowthrowing impeller extending between the side walls and located in front of the rear wall, wherein the impeller includes means for picking up and throwing snow upwardly along the rear wall of the housing; and
> (c) a snow collecting chamber located * * *

   Under the facts of the *Toro* case, invalidity could have been based on:
   a) Failure to disclose the best mode.
   b) The claim was added during reissue, but contained new matter.
   c) The claim was not supported by a written description.
   d) 102b
   e) Either of (c) or (b).

8) The Red Cross has a patent claim that reads: "Substantially pure factor VIII." With regards to First, Second, and Third generation factor VIII, which we discussed in class, which of the following defenses might protect Genentech from the Red Cross, even though there is almost nothing in the way of Federal Circuit precedent:
   a) the Doctrine of Equivalents
   b) the Reverse Doctrine of Equivalents
   c) the Doctrine of Prosecution History Estopple
   d) the Definiteness Requirement
   e) Claim interpretation under §112, ¶6

(This is for question 9) The article, "Industry Gets Religion" from the Economist Survey of Innovation, which you read, quoted Management Guru Peter Drucker for these 7 sources of opportunity for organizations in search of innovation:

> 1. The unexpected success that is gratefully received but rarely dissected to see why it occurred.

2. The incongruity between what actually happens and what was supposed to happen.
3. The inadequacy in an underlying process that is taken for granted.
4. The changes in industry or market structure that catch everyone by surprise.
5. The demographic changes caused by wars, medical improvements and even superstition.
6. The changes in perception, mood and fashion brought on by the ups and downs of the economy.
7. The changes in awareness caused by new knowledge.

9) American patent law will support patentability based upon reasons most closely resembling which of the above sources?
   a) 1 and 2
   b) 1, 2, and 3
   c) 1, 2, and 7
   d) 2 and 4
   e) 5 and 6

10) The decision you read that most supports the answer to the previous question is:
   a) *Diamond* v. *Diehr*
   b) *Diamond* v. *Chakrabarty*
   c) *Graham* v. *John Deere*
   d) *Lough* v. *Brunswick*
   e) *Graver Tank* v. *Linde Air*

11) In 1998, the US government spent $65,000,000,000 supporting scientific endeavors. Who is allowed to patent technologies developed using government funds under the Baigh-Dole Act?
   a) Universities
   b) Small businesses
   c) Large corporations
   d) Non-profit research institutes
   e) A, B, and D

12) According to The Economist Survey on Innovation, about how many "bright ideas" are needed from research and development efforts to come up with one "winner" on the market?
   a) 50
   b) 200
   c) 1,000
   d) 3,000
   e) 10,000

13) William Shockley developed the theory of migration of electrons and holes to explain how transistors worked. His invention of the transistor, along with the theory, won him the Nobel Prize in Physics. The theory: __1__ patentable under 35 U.S.C. § __2__.

a) (1) is (2) 100
b) (1) is (2) 101
c) (1) is not (2) 101
d) (1) is (2) 102
e) (1) is not (2) 102

14) In *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555 (Fed. Cir. 1991) (the *Double Lumen Catheter* case) the question of compliance with the __1__ requirement was satisfied by ___2___.

a) (1) written description; (2) the drawings
b) (1) enablement; (2) the original claims
c) (1) written description; (2) the specification
d) (1) written description; (2) the original claims
e) (1) enablement; (2) the specification

15) In *Westinghouse* v. *Boyden*, the ___1___ described ___2___ as: "a patent covering a function never before performed, a wholly novel device, or one of such novelty and importance as to mark a distinct step in the progress of the art, such as might led to a new branch of industry."

a) (1) Supreme Court; (2) pioneer patents
b) (1) Supreme Court; (2) blocking patents
c) (1) Supreme Court; (2) paper patents
d) (1) Federal Circuit; (2) submarine patents
e) (1) Federal Circuit; (2) blocking patents

16) Claims in United States patents issuing today usually have a life of ___1 ___ , but that period could be ___2___ because of ___3___.

a) (1) Twenty years from issuance; (2) shorter; (3) disclaimer
b) (1) Twenty years from issuance; (2) longer; (3) reissue
c) (1) Twenty years from issuance; (2) shorter; (3) misuse
d) (1) Twenty years from the filing date; (2) longer; (3) reissue
e) (1) Twenty years from the filing date; (2) longer; (3) regulatory delays

17) Advantages of the current 20-year, as opposed to the former 17-year, patent term include:

a) Substantially reducing the submarine patent problem.
b) Completely eliminating the submarine patent problem.
c) Fostering innovation if pendency exceeds 36 months.
d) Fostering innovation if pendency is less than 36 months.
e) Both (a) and (d).

18) The following claim is in _____ format

1. An improved battery cell of the type comprising: an anodic reaction zone containing a molten alkali metal reactant-anode, wherein the improvement comprises: a current collector having a graphite body bearing a coating of vitreous carbon on at least one surface and wherein the anode is selected from the group consisting of (i) a single phase composition having molten polysulfide salts, (ii) a two phase composition having molten sulfur and molten sulfur saturated polysulfide salts, or (iii) a three phase composition having molten sulfur and molten sulfur saturated polysulfide salts and molten sulfur cupric salts.

a) Jepson
b) Markush
c) Independent
d) All the above
e) Improper

19) Assume: that a claim element is "jet drive means;" that jet drives are recognized structures; that the claim language provides no function for the jet drive to perform; and that both the patentee and a qualified expert testify that the element is a means-plus-function element. The court should rule that:

a) The element is a § 112, ¶ 6 element.
b) The element is NOT a § 112, ¶ 6 element.
c) The element is a § 112, ¶ 6 element, if the specification makes clear the functions the element performs.
d) The element is a § 112, ¶ 6 element, even if the specification makes it clear that it cannot be so interpreted.
e) The issue is for the jury.

20) In *American Maize-Products* (Fed. Cir. 1999) (the *Maltodextrin* case) the district court stated that it would deny lost profits because defendant "could have produced" a substitute product using an available noninfringing process because defendant "had the necessary chemical materials, equipment, know-how and experience, and the economic incentive to produce" the substitute. The Federal Circuit __1__, because the substitute was __2__.

a) (1) affirmed; (2) available
b) (1) affirmed; (2) not available
c) (1) reversed; (2) available
d) (1) reversed; (2) not available
e) (1) remanded for a calculation of lost profits; (2) not legally available

21) A patentee can get __1__ profits if she can show __2__ and __3__.

a) (1) the infringer's; (2) but for cause; (3) proximate cause
b) (1) her lost; (2) but for cause; (3) proximate cause
c) (1) the infringer's; (2) but for cause; (3) reasonableness
d) (1) her lost; (2) but for cause; (3) reasonableness
e) (1) the infringer's; (2) causation; (3) reasonableness

22) The court may treble a patentee's __2__ recovery.
a) damages
b) lost profits
c) reasonable royalty
d) any of the above
e) none of the above

23) Ishler was a corn breeder for Pioneer Hi-Bred from 1965 until 1989 when he joined Cargill Seeds. In 1998, Pioneer used genetic fingerprinting technology to support a charge that specific genetic traits Pioneer had developed were present in Cargill seed lines. As in-house counsel for Cargill, you have heard unsettling talk of "friendly fields" and "chasing the selfs" and that Cargill is considering withdrawing 11 seed lines it had been selling. What defense(s) should you assert?
a) Pioneer cannot prove it had a secret
b) Reverse Engineering
c) Independent Development
d) (b) & (c)
e) (a, b, & c)

24) In the Pioneer case above, what is likely to the most hotly contested issue?
a) the definition of the "trade secret"
b) the "reasonableness" of Pioneer's cautions
c) whether Ishler's conduct can be imputed to Cargill
d) whether (Ishler and/or Cargill) engaged in improper conduct
e) damages

25) In the Pioneer case above, if Cargill argues that trade secret law cannot protect the genetic composition of seeds because the plant patents (35 USC §§ 161-163) already protects plants, Cargill is asserting _____ .
a) Field Preemption
b) Issue Preclusion
c) Conflict Preemption
d) Claim Preclusion
e) Explicit Preemption

Part II — Short Answers (Answer 5 of the 7 questions)

Each question below is worth up to (10) ten points — based on brevity, clarity, and accuracy. Answer any FIVE. Use only the available space following the questions on the printed face of these sheets for your SHORT answer.

26) Mobile Oil has a patent on a particular composition of 93 octane gasoline. The only claim at issue reads:

> A gasoline suitable for running expensive automobiles including:
> petroleum nonoxidative distillate;
> an octane rating of 93 or more; and
> the gasoline burns clean.

The least expensive method for making clean burning 93 octane gasoline is nonoxidative distillation. A more expensive method of making 93 octane gasoline, which also burns clean, is oxidative reverse osmosis. BP last week decided to look into switching from its infringing nonoxidative distillation process. This week BP is making gas exclusively through the more expensive oxidative reverse osmosis process, and no longer infringes. BP had not taken a license. Can Mobile get lost profits damages from BP for the period of infringement? Why or why not?

27) Mobile Oil has a patent on a particular composition of 93 octane gasoline. The only claim at issue reads:

> A gasoline suitable for running expensive automobiles including: petroleum nonoxidative distillate, said petroleum distillate having an octane rating of 93 or more; wherein said gasoline burns clean.

During an infringement suit, BP looks up a 1930 Ph.D. thesis at Sterling Library at World's Greatest University, New Haven, Conn. The chemistry doctoral candidate wrote of a nonoxidative distillation process for making gasoline that had what would today be rated as 95 octane. Is the thesis a 102 reference? If so, how so, and what kind?

28) Consider claims 15 and 16 below, which are in the same patent and have the same prosecution history:

15. A fork comprising a cylindrical handle; and four tines attached to the handle.
16. A fork comprising a cylindrical handle; a first tine attached to the handle; a second tine attached to the handle; a third tine attached to the handle; and a fourth tine attached to the handle.

Assume that these claims have the same scope when interpreted for purposes of literal infringement. Is a court more likely to give one as opposed to the other of these claims the benefit of doctrine of equivalents treatment when the accused device is a fork having three tines and the prior art does not restrict application of the doctrine? Which claim and why?

29) On June 8, 1999, Will, a NYC petroleum engineer, realizes he can use a platinum honeycomb to crack petroleum. Will does nothing more with the idea until he finishes redecorating on July 5, 2000, when he first tries to construct a platinum honeycomb. Then Will slaves night and day until he generates a working prototype on October 12, 2000. Will contacts Jack, a patent attorney, who files an application on January 2, 2001. Grace, a chemist residing in Portsmouth, NH, thinks of the identical platinum honeycomb to crack petroleum on August 12, 2000. She assiduously attempts to make the honeycomb and succeeds on September 15, 2000. Grace considers Jack a flake and writes her own application, which she files November 1, 2000. Who gets the patent and why?

30) In *American Maize*, the trial court determined that Grain Processing could not establish causation for lost profits because American Maize "could have produced" a noninfringing substitute 10 D.E. maltodextrin using Process IV. American Maize did not actually produce and sell this noninfringing substitute until April 1991, seven months before the '194 patent expired. In *Rite-Hite*, the model ADL-100 truck restraint was a noninfringing substitute that actually was available and on the market, yet the Federal Circuit affirmed an award of lost profits damages. Explain this apparent inconsistency.

31) Sakai and Morimoto are United States citizens who work in New Hampshire.

Sakai came up with the idea of a new method of preparing foie gras on January 1, 1994. Sakai works until perfecting the method on April 15, 1994. Sakai filed applications in Brazil on September 12, 1994; in Spain on March 13, 1995; and in the United States on September 30, 1995. The Brazilian patent issues on August 1, 1995; the Spanish on September 15, 1995. The United States application is still pending. Sakai thoroughly described the new method at IronChef.com on October 1, 1994.

Morimoto developed the idea for the same method on November 12, 1993. He did no further work on the project until December 15, 1994, but then quickly reduced the invention to practice on December 20, 1994. Morimoto filed patent applications in the Netherlands on March 31, 1995 and in the United States on December 21, 1995. Both are still pending. Morimoto begins advertising that he had a new method on December 1, 1994; Nobu, his restaurant in NYC, sold the first dinner made by the method on December 30, 1994.

Whose cuisine reigns supreme (who gets the patent)?

32) Clinical investigators at Shapht pharmaceuticals learned that cyclosporin, a drug that has been around since the 1950s, is effective combined with other common ingredients in prolonging the life and decreasing the suffering of AIDS victims. Shapht gets a patent and begins marketing cyclosporin. Wiennie, a Canadian group, begins advertising cyclosporin and how to use it for AIDS. Wiennie sells the drug for 10 percent what Shapht charges.

How could Shapht have gotten a valid patent?

How can Shapht squeeze Wienie out?

What are the four best policy arguments for why Shapht should be allowed to shut down Wienie?