

**EXAMPLE ANSWER**  
**COMPILED FROM STUDENT ANSWERS**  
**FOR**  
**PATENT LAW FINAL EXAMINATION**  
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**NOTES:**

The answers given below are compiled from several student answers. That is, the answer for the trade secret section may have been written by a different student than the answer written for the copyright section, etc.

The answers below were selected because they were the one of the highest point-obtaining answers for a specific area of law among a few of the student answers that earned a high grade on the examination. The answers are provided directly as written by the student, without any spelling or any other type of correction or editing.

These answers do not necessarily touch upon all point-obtaining issues, nor do they necessarily state all points of law and fact correctly. Moreover, they may discuss issues that are not point-obtaining. They are provided as a point of comparison, not as a suggestion that they are a perfect answer.

A. *Invalidity & Defenses*

**Section 101 Discussion**

To be valid, a patent must contain patentable subject matter, have utility, have novelty, be nonobvious and must adequately describe and enable the invention.

101 requires a tangible, practical advance in the useful arts in order for patentable subject matter to exist. Patentable subject matter is broadly defined to include any new process, machine, manufacture, or composition of matter. A process is a series of acts performed upon subject matter to produce a given result. Traditionally, no patent was available for natural laws, phenomena of nature or abstract principles. A process that produces a useful, concrete and tangible result is patentable. Patentable subject matter has been broadly construed to include almost anything under the sun.

Claim 1 of the 225 patent is at issue here. Claim 1 discloses a method for soliciting funds. This is a process claim. P will argue that this process is patentable subject matter because it describes a process for soliciting funds that produces a concrete and tangible result - the receipt of money. P will note that he is using two mathematical functions, but he is not trying to foreclose all use of such functions - he is only trying to prevent use of the functions in the given steps disclosed in the patent for raising money. D will argue that Claim 1 of 225 patent doesn't produce a concrete and tangible result because it is simply an abstract method for soliciting funds that might not even result in the receipt of funds. D will also object to the use of the math functions, arguing that this patent prevents others from using them. P will probably win here, in large part because of the expansive view of patentable subject matter found by the courts in interpreting the broad language of 101. Further, P's process does appear to produce a useful and tangible and concrete result - it solicits funds and is even able to calculate a particular fund to ask each visitor based on various heuristics.

**Utility**

101 requires that a patent be useful in order to receive patent protection. There are 3 types of utility. General utility asks if the invention is capable of any use. Specific utility asks if the invention works to solve the problem it is designed to solve. Moral utility inquires about the 'morality' and fitness of the invention. Moral utility is not very important anymore and is rarely used. The Fed Circuit has required that an invention be shown to have substantial and specific utility. Substantial utility requires the applicant to show that the invention is useful to the public as disclosed in its current form. Specific utility asks whether the invention can be used to provide a well-defined and particular benefit to the public.

P will argue that his invention, described in claim 1 of 225 patent, meets the utility requirement of the Fed Cir, as described in *In Re Fisher*. The invention has substantial utility because it is useful to the public in its current form. P will say the invention can be used as a method of raising funds by displaying images to visitors and then calculating an amount of money to ask for. P will argue that specific utility exists because a well-defined benefit is being offered- the ability to precisely request a sum of money based on how long a visitor visits a website. P will argue that many charitable organizations could make use of this invention. D will argue that this invention is deceptive - that because P never eats the rabbit and simply recycles rabbit pictures, that web site visitors are deceived into giving P money. D will likely fail on this argument because, per *Juicy Whip*, it is not the PTO's job to be the arbiter of deceptive trade practices. Since there is no indication that what D is doing is illegal, mere deception is allowed. Further, P will note that this 'deception' could itself be viewed as utility. It provides a way to raise money by

pretending to eat animals, without actually having to eat and kill the animals. Thus, P will likely win on this argument and his invention will be found to have utility.

### Novelty

The novelty requirement requires the patented subject matter not be preceded in identical form by the prior art. Prior art (PA) is the sum all references - knowledge that is currently known to the art. A patent claim lacks novelty when a single PA reference anticipates the claim. Anticipation under 102 requires that a single, enabling prior art reference disclose every element of what the patentee claims as his invention. The two step inquiry for assessing anticipation is to assess current state of knowledge known to the art and ask whether any references anticipate.

### 102(a) and (b) for Mexican Article

Printed publications can serve as PA if the invention was described in a printed publication anywhere in the world before the patentee invented it (102(a)) or if the invention was described in a printed publication more than 1 year prior to the date of the application for patent in the US was filed (102(b)). The proponent of this publication bar must show that prior to the critical date (the critical date is 1 year before the patentee filed for a patent application) the reference was sufficiently accessible, at least to the public interested in the art, so that by examining the reference, one could make the claimed invention w/o further research or experimentation.

We first consider SMI's publication in a Mexican journal read by POSITA and whether this anticipates claim 2 of the 150 patent. That this article was published in a foreign country does not prevent it from being 102a or b prior art. This publication came prior to P's conception date. Thus, it can be 102(a) art against P, as it is a printed publication in a foreign country prior to the date of invention. It also could be 102(b) prior art. Since this publication came out 1 year before P's conception date, it necessarily must have come out 1 year before P's filing date, as P could not have filed a patent for an invention that he had not yet conceived of! Thus, this printed publication could be either 102(a) or 102(b) prior art.

The next issue is anticipation. Does this Mexican article act as an enabling PA reference that disclosed every element of what P claims as his invention. The publication is a picture with some text that generally described the invention. P will likely argue that this is not specific enough to be an enabling reference because it does not disclose dimensions and thicknesses and surface area coverage. D will respond by using the inherency doctrine.

The inherency doctrine states that a PA reference may anticipate w/o disclosing a feature of the claimed invention if that missing characteristic is necessarily present in the single anticipating reference. Inherency once required a showing that (1) the missing descriptive matter is necessarily present in the thing described in the reference and (2) that it would be so recognized by a POSITA. However, the *Schering* court found inherency even though there was no past recognition of the inherent function by a POSITA.

D will note that a POSITA who sees the picture and the description in the Mexican article, a POSITA would immediately know how the SMI sheet metal was constructed. Thus, D will argue that the properties of Claim 2 of 150 patent are necessarily present in this PA reference. D will also note that, even though this factor may not be as important, that POSITA recognize that the claim 2 properties are necessarily present. D will thus argue that the inherency doctrine allows the Mexican reference to anticipate claim 2, rendering it wholly invalid. D will probably win here and be able to argue that P's claim 2 of 150 patent is anticipated.

**102(b) and the Australian Journal**

The Australian Journal article was published after P invented his invention, so it cannot be 102(a) PA, as 102(a) is keyed to the date of P's invention. The facts state that P filed for a patent only a few weeks after conceiving of the invention. If this Australian Journal article was published more than 1 year prior to when P filed for a patent, this journal article could be 102(b) prior art. Since the Australian Journal was published one year after P conceived of the invention and since P filed a patent application only a few weeks after his conceived of the invention, it seems clear that the Australian Journal article was published after P had filed for his patent. Thus, this article is probably not 102(b) prior art.

If this were valid 102(b) PA, D will have an easier time arguing that this is PA. This reference discloses the full specs and details of SMI's product. The fact pattern states that this product satisfies the language of P's claim 2. Thus, this is an enabling disclosure and would be 102(b) prior art. D would have been able to argue that P's claim 2 of 150 patent is anticipated had this journal article been published more than one year prior to P's filing date. Since it was not, P will win here.

**SMI Patent**

This patent was filed after the Australian Journal article was published. This journal article was published after P conceived of his invention and after P filed for a patent application. Thus, this SMI Patent is not 102a or 102b prior art. It's not 102(e) prior art because, while it is an invention by another and would be prior art as of its filing date, the filing date by SMI is after P's filing date. This SMI Patent is no help to D.

**102(a) and articles published by POSITA after Cheese-Metal is on market**

Knowledge by a 3rd party in this country can be 102(a) prior art. 102(a) has an implied public-ness requirement. 102(a) also doesn't necessarily require actual knowledge or use by the public - just that the invention was publicly accessible.

D will argue that these articles show that a POSITA in this country had knowledge of the invention prior to P's invention date. D will note that b/c these articles say this knowledge had long been latent, and because P conceived of the invention only a short time before marketing it, this knowledge must have existed prior to P's conception date. D will argue that is should be enough to anticipate P's invention under 102(a). P will respond by arguing that these articles do not anticipate each and every one the elements of the claims in his 150 patent. P will note that these articles do not say that use of carbon nanotube is obvious knowledge. Thus, P will argue that claim 2 of 150 patent is not anticipated. Further, these references do not disclose diameters. P will win here.

**Brazil Patent and Hughes**

Both foreign and US patents can serve as prior art under 102(a) and 102(b). The patent must have been available to the public. An inventor is presumed to know all pertinent prior art, whether or not actually aware of its existence.

The Hughes patent in Brazil is a foreign patent. This is ok under 102(a) and (b). The patent was filed 18 months before P filed his 150 application in the US. Thus, the Hughes patent is possibly 102(b) prior art. Since the facts state that P conceived of his invention only a few weeks before filing his patent application, it seems logical to assume that a few weeks is a shorter time frame than 18 months. Thus, the Hughes patent is also possibly 102(a) prior art.

P will argue that the Hughes (H) patent was not sufficiently accessible to the public interested in the art. P will note that the H patent was only available in a regional patent office and was not even published in English. D will rejoin by noting that the H patent was still indexed and catalogued. D will note that the courts have found that German language patents can be prior art, even though in a different language. D's best argument will be that the regional patent office's database was available over the Internet. Thus, D will argue that P could have read about H from the comfort of his own home or office without having to travel anywhere. D will probably win here, because P will be constructively charged with knowledge of this PA, and the H patent was indexed, catalogued in an office and available online. Thus, D will be able to argue that H anticipates Claim 1 of P's 150 patent under 102(a) and 102(b). D may be able to argue that claim 2 is obvious in light of Hughes, but that discussion will come later.

### **Obviousness**

A new combination does not warrant a patent if, from the vantage point of a POSITA at the time of invention, the new combination would have been obvious. The obviousness inquiry exists to prevent trivial advances in the art. For an invention to be obvious with respect to PA, there must be (1) a suggestion or motivation to combine, (2) a reasonable expectation of success and (3) PA references that teach all the claim elements and are analogous arts. A suggestion or motivation to combine may be found in the nature of the problem, in the teachings of the references, or in the ordinary knowledge of a POSITA. The reasonable expectation of success need not require absolute predictability.

For a PA reference to be analogous art, it must be from the same field of endeavor or must be reasonably pertinent to the particular problem with which the invention is involved. A reference is rably pertinent if, even though in a different field from the inventor's endeavor, it is one which, because of the subject matter with which it deals, logically would have commended itself to an inventor's attention in considering the problem.

In light of the above and the *John Deere* case, the fundamental inquiries to be made in an obviousness inquiry are (1) scope and content of prior art, (2) differences between the prior art and the claimed subject matter, (3) skill level of a POSITA, and (4) 'secondary' or objective indicia.

The first inquiry is which of these references are in analogous arts. It is fairly clear that Yorba is an analogous art. Yorba is from the same field of endeavor - sheet metal - as P's invention. Thus, Y is analogous art. It is less clear if Z is analogous art. P will note that golf balls are not from the same field of endeavour as sheet metal. P is almost certainly correct here. The fact pattern notes similarly that a sheet metal POSITA is a material engineer, not a golf ball designer. P will then try to argue that Zeb is not reasonably pertinent to the particular problem with which the invention is involved. P will note that Zeb is directed towards increasing the distance that a golf ball will travel, while his invention is for a snap-back sheet metal. Long travel distance is not remotely related to snap back sheet metal is what P will say. P will say Zeb is so different that a patent describing a method for making golf balls travel further would never have commended itself to an inventor's problem in trying to build snap back sheet metal. D will try to argue that a POSITA would have been generally interested in the use of snap-action coating, regardless of on what device it is used. Since Zeb uses snap-action coating, D will argue that looking at golf balls covered with snap-action coating would have commended itself to an inventor about to use snap-action coating for any purpose. D will probably lose here – P will probably rightfully argue that making golf balls travel further is simply too disparate a field from sheet metal for a sheet metal POSITA to have considered it. Even though Zeb is probably not analogous art, an obviousness inquiry using Zeb will still follow.

Scope and content of Prior Art

Yorba - Sheet metal with second layer made from Snappy (hardening paste, NO carbon nanotubes) that provides snap-back action once hard. Sheet metal meets (a)-(e) in claim 1 of 150 patent except: has triangular indentations ordered in a grid pattern

Zeb - Golf ball, randomly arranged circular indentations in lower layer, out layer filling indentations, coating with 18% carbon nanotubes. (this increases length of travel by ball).

Differences between the prior art and claimed subject matter

Yorba - uses triangular indentations rather than the circular indentations used in P's invention. The indentations are in a grid pattern in Yorba, but in a random pattern in P's invention. Yorba uses Snappy a hardening paste, while P's invention does not.

Zeb - Zeb is a golf ball, while P's invention is sheet metal. Both use circular indentations arranged randomly. Zeb uses 18% carbon nanotubes, while P's invention uses at least 20% carbon nanotubes.

Skill level of a POSITA

D will try to argue that a high level of skill exists in the art, thus making many inventions routine. A patentee will prefer that the ordinary skill in the art be that of a neophyte, to whom very little would be obvious.

The fact pattern does not describe much about this. The invention does use carbon nanotubes, which are a new cutting edge technology that was only recently invented. This suggests a high level of skill, as nanotubes are both new, difficult to produce in large quantities, and very small (and thus hard to work with). If there is a high level of skill in the art, this will favor D.

It is not clear if there is any motivation to combine Yorba and Zeb. None is listed in the fact pattern. The Yorba and Zeb are such disparate inventions also suggests that there is no motivation to combine them. This favors P.

Objective Tests

The objective tests are described to provide evidence of how interested industry actors perceived the claimed invention. A proponent of a secondary consideration must establish a nexus between the evidence and the merits of the claimed invention. The nexus requirement means there must be a showing of a legally and factually sufficient connection between the objective factor and the claimed invention.

Here, P presents evidence discussing the pervasive use of triangles and the difficulty of using elliptical shapes. P will argue that this shows skepticism that P's invention could be done. P will note that this skepticism is particularly persuasive, as it arises before the invention. P will also note the prior failure of POSITAs to use elliptical shapes to reliably produce a snap action sheet metal. D will rejoin by noting that the prior people might not have been trying to solve exactly the same problem and may not have been motivated to succeed because of satisfaction with the status quo. Still, it may be hard for D to rebut the skepticism, so P probably has a stronger case here.

P will probably win. Zeb is likely not analogous art. Even if Z is analogous art, there does not appear to be any motivation to combine Y and Z. Further, the objective tests are in P's favor.

**Hughes and Obviousness**

The Hughes patent is valid prior art, as discussed in the novelty section. The Hughes patent is likely analogous art, as it satisfies the claim language of claim 1. D will argue that Claim 2 is obvious in light of Hughes because the fact pattern states that a POSITA would find a second layer with mostly carbon nanotubes obvious in light of Hughes. D will probably be able to show that claim 2 is obvious.

**Inequitable Conduct**

Inequitable conduct, the intentional failure to disclose material information, brings about the unenforceability of the resulting patent. Inequitable conduct includes an affirmative misrepresentation (MR) of a material fact, failure to disclose material information, and submission of false material information coupled with intent to deceive. Inequitable conduct may be proved by showing materiality and intent. Material information is info that a rsbl examiner would have considered important in deciding whether to allow the application to issue as a patent. Note that cumulative info is not material.

D will argue that P engaged in inequitable conduct. D will note that P paraphrased two books to emphasize what P wanted to emphasize and then had P's cousin sign the document to make it appear that the cousin was a POSITA (she was not) and that his cousin had authored the text (which she had not). D will argue that this is either an affirmative MR, by MRing the credentials of the cousin, or the submission of false material information with intent to deceive.

D will argue that the info submitted was material b/c it was important to a rsbl examiner in decidign how to rule. D will note that this examiner changed her mind from a rejection to allowing the claim based on the submission of the false material information. P also intentionally created the document signed by the cousin to present P's case most favorably. Finally, D will argue that P had intent to deceive - specific intent in fact. D will note that P was frustrated with the application process and P intentionally doctored documents and MRed the qualifications of his cousin. Further evidence of P's intent to decieve can be seen by the fact that P thanked his cousin and bought her a 2000 grill.

P will argue that the material he sent signed by his cousin was merely cumulative - because it was derived from the same sources as material that had already been submitted. P will probably lose here b/c D can point out that while P's submission was derived from the same source, it presented the material in a light favorable to P and was also signed by P's cousin to give the impression was a new source and not simply a re-hashing of old sources. P will not likely be able to show any purging of inequitable conduct b/c he never advised the PTO of the existence of the MR, never advised the MR of the actual facts and never established patentability once the MR had been removed.

Thus, D will probably win here. Because D can show inequitable conduct, this would result in the invalidity of all of P's patent.

## B. *Infringement*

### **Infringement**

Paul is suing David for infringement of claims 1-2 of the '150 patent for sales of Fast-Metal and Mod-Metal, as well as Plastic-Metal. A person infringes when he makes, uses, sells, or offers to sell the patented invention, and here, David made the 3 metals.

In constructing claim terms, courts have set forth a soft hierarchy of steps to use in making a determination of a word's meaning. To begin, courts first look at the claim itself and decide whether its plain meaning can be discerned from the claim language. If it is clear on its face, then other intrinsic evidence, such as the specification and prosecution history must be examined only to determine if deviation from the clear meaning is necessary. As accused infringer can overcome the heavy presumption that a claim carries its ordinary and customary meaning by showing the patentee acted as his own lexicographer, the term was distinguished from PA, it was important to a particular embodiment, etc., it deprives the term of clarity as to resort to extrinsic evidence. If a claim recites a general structure without limiting that structure to a specific subset of structure, the court will generally construe the term to cover all known types of that structure the patent disclosure supports.

### Literal Infringement

For literal infringement, each limitation of the claim must be met by the AID exactly, and any deviation from the claim precludes infringement. The omission of any limitation is fatal to LI. Claims are best construed in connection with other parts of the patent instrument and with the circumstances surrounding the inception of the patent application.

### Fast-Metal

It is stipulated it has the characteristics of (a), (b), and (e) in claim 1.

(c) - in Paul's patent, the indentations are randomly scattered over one side of the first layer, the circular indentation diameter is in the range of 1 to 2 inches and the surface area coverage of the indentations is in the range of 35% to 50% of the surface area of the first layer. The Fast-Metal product also has randomly scattered circular indentations but are 2.001 inches and cover 40% of the first layer surface area. Since 2.001 inches is extremely close to the recited range of 1-2 inches, a court may be tempted to find element to literally infringe. To understand the state of the art, however, they might hear the testimony of POSITAS, but this extrinsic evidence is not to be relied on unless the claim is genuinely ambiguous after the examination of intrinsic evidence, and that is not the case here. On the other hand, the claim is fairly clear in its recitation of a diameter of 1-2 inches, and does not modify the range with language such as "approximately," or "about" so this element is better left to a DOE analysis, as it doesn't literally infringe.

(d) - Paul's element describes a second layer where the second layer material provides snapback action while remaining in cooperative adherence with substantially all of the first layer's indentation side. As for the Fast-Metal product, this element is satisfied as well and thus literally infringes.

Claim 2 - Paul's claim 2 describes the 2nd layer material as "at least 20% carbon nanotube." Here, the second layer material fills the indentations with 25% carbon nanotube. Since "at least" modifies "20%" in Paul's claim 2, it is fairly clear that claim 2 is literally infringed.

### Mod-Metal

It is stipulated that Mod-Metal meets elements (a), (b), (d), and (e).

(c)- the indentations in Figure 2 of the Mod-Metal product disclose indentations that are 1.1 inches in diameter and cover 33% of the 1st layer surface area. Though the 1.1 inch range literally infringes element (c), the 33% surface area figure does not fall within the range of 35-50% as claimed in Paul's patent and thus must be examined as an equivalent.

### Claim 2

Figure 2 doesn't disclose carbon nanotube so cannot literally infringe.

### Plastic-Metal

This uses bendable plastic rather than bendable metal and thus does not literally infringe. However, the '150 patent does disclose an embodiment with bendable plastic for the first layer. '225 patent

Since David's website does precisely what is stated in claim 1 of the '225 patent, it would literally infringe.

### DOE

Under the DOE, a product that doesn't literally infringe on the express patent terms may Nonetheless be found to infringe if there is equivalence b/t the elements of the AID and the claimed elements of the patented invention. DOE is applied on an element-by-element basis, and courts must look at the context of the patent, PA, and particular circumstances of the case. Of particular interest is whether a POSITA would know of the interchangeability. As for the framework, there are 2 approaches: does the AID perform substantially the same function, in substantially the same way, producing substantially the same result; in the alternative, whether it performs a substantially similar function, w/insubstantial differences. However, the DOE does contain some limitations in its application.

DOE is done on a claim by claim basis and since the other elements literally infringe, there are only a few elements to discuss under the DOE. The major elements at issue here seem to be the random scattering of the indentations and the surface area coverage range of 35% to 50% in claim c. In addition, there is a question as to the equivalence of using plastic rather than metal in the Plastic-Metal product.

POSITAs published many articles analyzing Cheese-Metal, pointing out that if an artisan understood that randomly scattered circular indentations were important, the surface area coverage would self-evidently need to be in the range of 33% to 50%. This is important as the AID has a ratio of 33%. Even more so, POSITAs said it should be considered long-standing latent knowledge, which is a very strong indication of equivalence. When Paul amended this claim, he focused on the important inventive aspect of randomly scattering the circular indentations and that it is hard to get effective random scattering below a coverage range of about a third of the first layer surface area. This evidence was available before Paul's patent was issued so it is fathomable that David would know to use this ratio, as would any other skilled artisan. POSITAs also admitted that the randomly scattered circular indentations would satisfy the SSF(identical)-SSW-SSR test of the DOE. There may be an issue with PHE, one of the limitations of the DOE doctrine. David could argue that by focusing on the random scattering of the indentations, Paul was not aware or concerned with the self-evident surface area range. The PHE inquiry is as follows: 1) whether an amendment has narrowed the literal scope of the claim - here by adding the surface area requirement, the claim was narrowed; 2) was the reason

substantially related to patentability (W-J presumption) - here, it was in response to an indefiniteness inquiry which the SC has said is SRtoP (Festo). To rebut, the patentee can show the reason was not related to patentability, but that probably can't be done here. 3) address the scope of the subject matter surrendered by the narrowing amendment - here, he would be giving up the areas not covered by 35-50%. (Festo). However, Paul can rebut by showing the equivalent was unforeseeable at the time of the application - which probably won't work here b/c POSITAs had remarked that 33-50% was the inevitable range to be used with that type of random ordering; or since Paul disclaimed the third Festo rebuttal criteria, that the rationale underlying the amendment bears no more than a tangential relation to the equivalent in question. In other words, whether the reason for the narrowing amendment was peripheral, or not directly relevant, to the alleged equivalent. Here, Paul can try to argue that his reason for amending was solely for the random scattering effect and had no bearing on the surface area. However, this argument will likely not be upheld, as David can argue the two elements are inextricably linked - one cannot effectly radomly scatter the indentations without achieving that particular surface area coverage. By disclaiming the area b/t 33-35%, Paul has probably effectively barred himself from asserting that range as an equivalent in David's AID. [This may also be construed as argument estoppel if the element was narrowed by arguments that narrow the meaning of a pending claim element so the claim literally covers less than it would in absence of the PHE - here, from 33%-35%]

There is an issue as to whether plastic is equivalent to metal as in claim 1. Paul will have to show that plastic performs SSF-SSW-SSR. We don't have evidence as to this fact, but current technology allows for the creation of plastics that in many cases have properties very akin to metal. It may require POSITA testimony to determine the state of the art in this regard, but as long as the metals don't have properties that would uniquely provide for this structure that plastics could not accommodate, there will probably be equivalence with this element and the product will infringe. In addition, if plastic were found to be an equivalent, Paul's '150 patent discloses but does not claim an embodiment w/bendable plastic for the first layer. This could be taken as a dedication of that equiavlent to the public. This limitation says the claim of a specific device (the metal), and an omission to claim other devices or combinations apparent on the face of the patent (the plastic) are a dedication to the public of that which was not claimed. In these circumstances, Paul would not be able to claim the plastic as an equivalent. On the other hand, infringement, eitehr literally or under DOE, does not arise by comparing the AID w/a preferred embodiment in teh specifciation or w/a commercial embodiment of hte patentee.