PPE Notes: Prep Workshop for the PPE Exam + notes from the texts Disclaimer: I don't guarantee anything in these notes is correct or that the notes are comprehensive in any way ;)

General information (found in Part A)

In answering the ethics questions in part A, make sure to cite the particular article of the code that pertains to that particular situation.

Definition of profession	 Profession: 1. A group (membership required) 2. with specialized knowledge 3. accountable and responsible 4. self regulating and governing
PEO - purpose - authority - process	Key purpose: service to the public PEO enacted by law and authorized by law to regulate the profession Operates via peer assessment of practice
PEO Governing Council LGA's	 The PEO Governing Council: ~20 people: each person is either elected or appointed Appointed counselors are called LGA's (lieutenant governor-in-council appointees) The LGA's are generally non-engineers there to represent the general public
PEO primary objectives	 Primary objective of PEO Regulate the practice of engineering Govern members – P.Eng's (only P.Eng's can be members) Govern other license holders and holders of Certificates of Authorization
PEO's Regulatory role	 PEO's authority: regulatory role Licensing and registration Enforcement – to force non-licensed people who are practicing to stop until they are licensed Complaints and disciplinary processes – against PEO members (i.e. P.Eng's) and other licensees

Negligence	"failure to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances."
	A negligent engineer can be disciplined by PEO even if their negligence did not result in any damages
Use of the stamp	 Use of engineering seal (stamp) Take it seriously Only used on engineering work On final documents (not drafts or preliminary work)
Overall purpose	 Point: protection of public welfare Also responsibility to employer, client, colleagues, self
Licensing criteria	 Legislated licensing criteria: 18+ years of age Good character Satisfies academic requirements 4 years of work experience Passed the PPE exam
Types of licenses:	Types of license holdersProfessional Engineer (P.Eng.)
Temporary license criteria	 Temporary license Not resident of Ontario who need or want to practice here temporarily (for a single project) Good for 12 months, can be renewed once Temporary licensees are P.Eng's but must work with a licensed Ontario P.Eng. during the project
Eminent Practitioner criteria	 Eminent Practioner Temporary licensee who is not required to work in collaboration with a licensed Ontario P.Eng. Must prove eminent expertise in the field
Limited license criteria	 Limited license Not a P.Eng. Certified only in a specific defined area of practice Allowed to stamp projects in this area
Provisional License criteria	 Provisional license For people newly arrived in Canada who have overseas engineering degrees and work experience Not a P.Eng.

	 Meets all requirements of the P.Eng. except the Canadian work experience i.e. has appropriate academic requirements, passed the PPE exam, engr work exp, etc. Good for 12 months, can be renewed in special circumstances Can be "converted" to a P.Eng. after 12 months of Canadian work experience and expectation is that the provisional licensee will do this as soon as they can. Can be used to demonstrate to an engineering employer that the person is qualified to become a P.Eng. in 12 months
Types of engineering work situations	Types of engineering work situations: a common question might be about what you need as an independent practitioner to practice
Employee Engineer	• Employee Engineer – an engineer who does their work for a company
Independent Practioner; criteria	 Independent Practitioner – offers engineering services directly to the 'public' Must have a license (P.Eng. or other type) Must have a CofA (certificate of authorization) If work is consulting (or you use "consulting engineer" on your business card) then must obtain 'Consulting Engineer' designation
CofA	 Certificate of Authorization (CofA) Renewed annually Must have a license (not sure which types) to get a CofA Must have 4 years of experience beyond license requirement Must have PLI (professional liability insurance) Or declare to your client that you do not carry PLI
Consulting Engineer	 Consulting Engineer designation Must be licensed Must have 5 years of experience working for a consulting engineer
Fees Mediation committee	Fees mediation committee – committee to settle disputes between engineer and client concerning fees.
Differences: OSPE PEO	OSPE – Ontario Society of Professional Engineers membership services and advocacy group
	PEO – purely disciplinary and regulatory

Part B: Law Marston's Book

General comments:

- IMPORTANT: study the 20 study cases found at the end of Marston.
- make sure your answers are more than just yes or no.
- If you remember a precedent case, you may want to cite it.
- It might also want to show (diagram) the situation, i.e. show the relationship between the parties, if there is a disclaimer or not etc.

Typical Question types:

- 1. Definitions
 - Typically a list, you get to pick 5 out of 8 or so
 - They will mark the first 5 you have answers for
- 2. Tort Liability
- 3. Contracts
 - a. Fundamental breach
 - b. Mistake, such as in a tender situation
- 4. Limitation Period
- 5. Equitable Estoppel

Terms: might be in the definition question or come up in one of the long questions

Theory of Precedent	"application of legal principles established in previous court decisions that involve similar or analogous facts"
	"the most persuasive precedent is usually the decision of most recent date from the highest court."
Common Law	 Originally a "system of specific remedies" in British law Newer: common law combines old precedent with principles of

	 equity Newest: "judge made law", i.e. court decisions that establish legal principles
Legislation	Statutes enacted by a legislature
Public law	Deals with relationship between rights and obligations of government and individuals or private organizations.
Private law	Contracts, torts, etc. Relationship between two private or individual entities
Ultra vires	Describes a legislated act that is void because it applies to an area beyond the legislatures jurisdiction.
Litigation	See page 8
Plaintiff	See p. 8
Defendant	See p. 8
Appellant	See p. 8
Respondent	See p. 8
Privity of contract	See p. 8
Creditor	See p. 8
Debtor	See p. 8
Indemnifcation	"A promise to directly compensate or reimburse another party for a loss or cost incurred similar to a guarantee" See p. 8 for clarification of the difference between an indemnity and a guarantee.
Engr. legal compliance	Engineers must comply with principles relating to tort and contract law and all relevant statutes and regulations
Duty of Care: engineer	tort or contract situation: based on reasonable care and skill of engineers of ordinary competence.
Standard of care: manufacturer	Manufacturer must meet a standard of care: give clear instructions on appropriate, safe use of product.
Duty to warn: manufacturer	Manufacturer has a duty to thoroughly warn consumers of all dangers inherent in appropriate use of product, including the use of well written warning labels. Also, duty to recall or warn users if defects are discovered in a product line after sale.
Legal forms of business	Sole proprietorship Partnership Corporation: Shareholders, Directors, Officers
Product liability	When consumer can show that damage resulted from appropriate use and damage ought to have been reasonably foreseen. Combination of tort (i.e. manufacturer ↔ consumer or user) and contract (i.e. retailer ↔

	consumer (warranties, conditions of sale, etc.)).
Disclaimer	see info below a statement, typically in a report or other document, which, when present, means a tort can not go forward.
Tortfeasors	see info below
Economic loss	Refers to lost profit. Can be claimed if defendant's actions directly resulted in unavoidable lost profit to the plaintiff's business.
Rule of Contra Proferentem	if a contract goes to court, it will work against the party that drafted the contract, i.e. the party that drafted it is held responsible for the wording
Parol evidence rule	anything not written in the contract is difficult to enforce, even if it was agreed upon verbally
Implied terms	An obvious term that is left out of a contract. E.g. work must meet all regulations and standards.
Discarded terms	terms under which a party can withdraw from a contract (??), i.e. the terms under which the contract can be discarded.
Frustrated contract	see info below
Force Majeure statement	(p. 134) a statement in the contract that provides for an extension in the event of war, flood, labor dispute, etc.
Penalty clause (liquidated damages)	Genuine estimate of damages (penalty clause) – p.141 clause in a contract that estimates the <u>liquidated damages</u> if the contract is liquidated (i.e. not completed).
Quantum Meruit	"as much as is reasonably deserved", if payment was never decided upon then the court uses this principle to award reasonable payment.
Duty to mitigate	see info below under contracts
Duty of honesty	Engineer has a duty to be honest.
Exemption clause	see contract info below
Equitable Estoppal	see contract info below
Limitation Period	The limitation period is the time when you are allowed to make a claim (based on tort, or breach of contract). After the limitation period you can not make a claim.
For a tort For a contract	 For tort, the limitation period begins when the damage, loss or injury was, or ought to have reasonably been, discovered (called <u>discoverability</u>).
Discoverability	For contract, limitation period starts at the time of breach.The limitation period is 2 years for a tort or for a breach of contract.
Ultimate limitation period	- There is also an ultimate 15 year limitation from the time of the act or omission which forms the basis of the claim. This ultimate limit applies regardless of discoverability.

	- This statute takes precedence over terms in a contract, i.e. a contract
	can not alter the limitation period.
	The info in the book is not up to date on this. See the addendum on the website.
Statute barred	An action which begins after the limitation period fails because it is statute barred
Engineer as expert witness	Must restrict testimony to area of expertise. Should clearly understand lawsuit: issues and likely scope of questioning.
Secret commission	Bribes, kickbacks, etc. Engineer may not accept a secret commission, doing so opens one up to liability and criminal prosecution.
Contract condition	Obligation essential to the contract. Breach of a condition may entitle a party to discharge of the contract
Warranty (contract)	Has several meanings. Pertaining to a contract: obligation not essential to the contract. Breach of contract warranty may entitle a party to damages (but not entitle discharge).
Repudiation	When one party indicates to the other that they have no intention of executing contractually obligated consideration (payment, work)
Remedy	Damages for loss incurred as a result of breach of contract. Amount should have been reasonably foreseeable by party who breached.
Direct damages	Plaintiff had to pay more to get the same consideration that was owed them by the defendant. The difference between what the plaintiff had to pay, and what was originally charged by the defendant is call the direct damages.
Indirect damages	Damages that are not direct. Also called <u>consequential damages</u> . E.g. economic loss (lost revenue)
Agency relationship	An engineer may act as an "agent" for a "principal", this means to act on behalf of within an agreed upon scope.
Competition act	Designed to maintain and encourage competition. Specifically targets: - misleading advertising - bid rigging - conspiracy - puts limits on collaboration between members of trade associations
Gratuitous promise	A promise made without consideration (payment, exchange of services, etc.)
Construction lien	(p. 243) see info below in the construction contracts section
Human Rights code	(p. 312)

Corporation An entity unto itself distinct from shareholder owners. Can be described

	as a "fictitious person"
Liability	Shareholders are not directly liable for corporate negligence or damages levied against the corporation
Board of Directors	Elected. Supervise management of corporation
Officers	Elected or appointed by directors. Provide daily management
	Directors and officers must supply a standard of care
	Must disclose conflicts of interest as they arise
Engineering Corp.	Must comply with all requirements of a corporation and with all statutes governing engineering
Incorporation for purpose of shielding liability	Incorporation does, to some degree shield individuals, officers, directors, etc. from liability or corporate debts. But court will not uphold this shielding if individuals are using incorporations for perpetuating fraud, i.e. fraud -> personal assets can be seized.
Partnerships	
Liability	Partners' personal assets can be seized for damages or debt repayment
Dissolution	Upon death, bankruptcy, or insolvency
Limited partners	Partners whose liability is limited by agreement with the full partners
Sole Proprietor	Individual who owns and manages their own business
Liability	The personal assets of a sole proprietor can be seized for damages, or to pay off debt.

Information on the types of common long questions:

Tort definition	Tort – civil wrong or injury to an individual. No privity of contract (i.e. applies when no contractual relationship exists between the two parties). Torts are decided on the balance of probabilities (<u>not</u> reasonable doubt the way a criminal action is decided).
The point of a tort	The point of a tort is to compensate (financially) for loss, injury, or damage. Three important points to mention:
Steps to a tort	a) defendant owed a duty of care (to the other party)b) defendant breached duty of carec) damage or injury resulted

Disclaimer	 A statement included on a document (information item, report, piece of advice) that tells the reader not to rely on that information or advice when making important decisions. If a tort action hinges on the plaintiff's claim that they relied on a piece of information, or took the advice contained, in a document with a disclaimer and that this resulted in damages: (see p. 37 for example) the tort action can not go forward However, if a tort action hinges on the plaintiff's claim that they relied on a piece of information, or took the advice contained, in a document without a disclaimer and that this resulted in damages: the tort can go forward
Disclaimer	Hedley Byrne vs. Heller (1963) see p. 36
precedent	 Wolverine vs Noranda (1994) In a land deal with Noranda, Wolverine had relied on the advice and information in an environmental report which had been commissioned by Noranda and had been prepared by a 3rd party (Arthur D. Little). The report had a disclaimer. Wolverine claimed damages that resulted from their reliance on the ADL report information. Wolverine lost the case.
Tortfeasors	Tortfeasors – concurrent tortfeasors is applicable when more than one party caused the injury or damage, in concert or not. The group of people, or parties, are called the tortfeasors. They must be responsible for the same injury or damage. In this type of situation you might want to also put on the exam how you might apportion the damages (i.e. 60% and 40%, etc.) amongst the tortfeasors.
Vicarious Liability	Vicarious Liability – (p. 59) also known as the "deep pockets" rule This pertains when there are <u>concurrent tortfeasors</u> , such as engineers and their employer. The court may decide that all, or a substantial portion, of the damages should be payed by the company because they had vicarious liability and are able to pay for the damages. Make sure to point out who the tortfeasors are and whether they were acting in good faith (if they weren't acting in good faith then they will probably be liable for a share of the damages).
Economic loss	Often applied when bad "expert advice" (or design, drawings, etc.) led to lost profit.
Economic loss: product liability	Economic loss can not generally be claimed in product liability cases, <u>unless</u> damage is directly (or in "sufficient proximity") to plaintiff's property and plaintiff can show direct, unavoidable economic loss that was or should have been foreseeable by the defendant.
Product liability precedent	Rivtow Marine vs. Washington Iron Works (1973), p. 55 - collapsed crane that manufacturer should have known was defective. - other relevant precedents: p. 58

Tort of defamation	Tort of defamation (unlikely to be on, but should know) – Untrue statements made publically that injure the reputation of the plaintiff. If the statements are verbal it's called slander, if they are made in writing it's called liable. The plaintiff can be a person, company, group, etc.
Occupier's liabilit	Duty of care to people who come onto your property
Tort of nuisance	Protects against "undue interference with comfortable and convenient enjoyment of the plaintiff's land".
Contracts	
5 essential elements of a contract	 5 essential elements: offer made and accepted mutual intent to enter into the contract (no coercion, etc.) consideration (something of value) is promised capacity to contract (must be of legal age etc.) legality: lawful purpose; a contract is unenforceable if it is contrary to statute or common law
offer	made by offeror to offeree; can be withdrawn before acceptance (unless specified otherwise); offer will lapse if not accepted within a reasonable (or stated) time.
Irrevocable offer	p. 77; must be stated in the RFP or the offer to be enforceable
Court ruling on contract terms	Court will <u>not</u> change the terms of a contract. It can rule the contract valid or void, voidable, or unenforceable.
Assignment of rights	Unless forbidden by the terms, a party may assign contractual benefits (consideration) to a 3^{rd} party without consent of the 2^{nd} party.
Contract types A & B	The courts have ruled that a bid (A) in a tendering process is a separate contract from the actual contract (B) that is being bid on.
Contract mistakes	
Rectification	Mutual (i.e. common) error where written contract, because of clerical error, inaccurately, and obviously, misrepresents verbally agreed upon terms. Party may ask court for rectification of the contract.
One-sided	Unilateral mistake; made by one party
Mistake: in A	Mistake in a bid during the tendering process.
Precedents	Precedents: Ron Engr. vs the Queen, Belle river vs WJC Kaufmann An offeree can not accept an offer when they know there is a mistake that goes to the fundamental purpose of the contract, which favors them, and that was not the offer the offeror intended to make. However, based on the precedent the bidder (offeror) will probably forfeit any tender deposit.

Frustrated contract	Frustrated contract – discharged by frustration If there is a major <u>unforeseen</u> change that totally changes the situation. e.g. during a renovation project the house burns down. A change that could have or should have been anticipated or overcome, labor shortage or bad weather for example, would not be cause for claiming frustration.
Breach and fundamental	Breach of contract – party fails to perform obligations. Non-breaching party may sue for damages.
breach	Fundamental breach of contract – breach goes to the root of the contract.
Fundamental breach precedent	Harbutt's placticene In this case Harbutt's entire plant burned down because of the failure of equipment installed by the defendant company. The contract did include an exemption clause, but the court ruled that the clause should not hold in this case the defendant was libel for the full amount (i.e. cost to replace the plant)
Duty to mitigate	Duty to mitigate – (p. 141) parties must be reasonable in trying to mitigate damages and find a way of working things out before taking the issue to court.
Exemption clause	Exemption clause (penalty clause) - a clause in the contract which limits the damages that can be claimed in case of a fundamental breach
True construction approach	Courts now take a "true construction approach" to exemption clauses. This means that to be valid the exemption clause must be clear and exactly to the point (otherwise the exemption clause may not be viewed as valid by the court).
Exemption precedent	Precedent: Hunter vs Syncrude (p. 151) case involved gear boxes that were manufactured by a 3 rd party for Hunter to be installed (by Hunter) for Syncrude as part of a system. Hunter's contract with the 3 rd party included an exemption clause that was upheld.
Equitable Estoppal	Equitable Estoppal – (p. 88-92) a promise made in conjunction with a contract that does not include consideration. For example if, after the contract has been signed the parties discuss, and agree verbally on a change in the conditions, and new conditions are followed for awhile, then one of the parties can not go back to enforcing the original terms of the contract even though no new terms were agreed to in writing. Use in a sentence: the first party requested that the second party be equitable estopped from strictly enforcing the terms of the contract. However, the new conditions have to be discussed or at least brought to the attention of both parties for this to be valid. A "casual" change in the conditions for awhile does not negate the original terms of the contract.
Precedent	Conwest vs. Letain or the Owen Sound library board case (p.91)
Option contract	p. 78; right to accept offer is kept open (offer can't be revoked) until offeree chooses to accept or reject, or for specified time period; some nominal consideration must be made at time of option agreement to make this an

	enforceable contract.
Governing law	The law in effect in the place where the offer is accepted will govern the contract unless stated otherwise.
Communication on offer	• parties agree to use post or telegram: acceptance occurs when letter or telegram is sent
	• parties don't have an agreed comm. form: acceptance occurs when offeror receives acceptance.
	• Revocation of offer occurs (no matter what comm. form is agreed on) when offeree gets the revocation.
Letter of intent	Expresses interest in proceeding with negotiation toward a contract. Letter of intent or agreement to proceed with negotiation is not an enforceable contract.
Seal	Substitute for consideration. It is an indication of a promise. E.g. to be binding a bid must be sealed or include a deposit. Exception when a seal or consideration may be unnecessary: a gratuitous promise pertaining to an existing contract that falls under the principle of equitable estoppal.
Non-competition agreement	Terms may restrict one party from competing with the other if: - terms are reasonable and do not unduly interfere with the party's livelihood
	- terms do not adversely affect public interest If action is taken, court will decide if non-compete section of contract is, or is not, enforceable, but will not change the terms to bring it into compliance.
Statute of frauds	Certain types of contracts must be written (not verbal) to be enforceable; - contract related to land - contracts for work that will take more than 1 year to complete - IOU's
Contract recinded	Cancelled or set aside (different than unenforceable)
Mutual intent	Contract is entered into not based on misrepresentation, duress, or undue influence:
	 misrepresentation, innocent: contract rescindable; deceived party must repudiate contract reasonably quickly and can claim damages
	 misrepresentation, fraudulent: rescindable; deceived party can claim damages and sue for deceit
	- duress; contract is voidable
	- undue influence; same as duress but to a lesser extent: contract voidable
Contract interpretation	Interpretation of the language in a contract can create a dispute. The court will tend to favor a "strict" interpretation rather than a "liberal" (takes into account party's intent) interpretation.
Discharge of contracts	A contract can be discharged, or ended, by:1. performance, i.e. all contract requirements have been met2. mutual agreement: parties mutually agree to terminate contract

	3. under express terms: following an explicit set of terms for discharge that are in the contract4. by frustration: discussed above
Substantial compliance	Essential terms of the contract have been met.
	If the essential terms of a contract are met, then the work must be paid for. If minor aspects were not met, damages for these can be recovered, but you can't refuse to pay for the whole thing.
Specific performance	To remedy a dispute the court may require a party to execute a specific contractual obligation. This is only applied when money (i.e. normal damages) would not provide an equitable settlement. E.g. turn over a unique piece of land or an antique.
Negative covenant	A contract term in which the party or parties agree <u>not</u> to do something, e.g. a non-compete clause.
Injunction	May be applied by the court to keep a party from breaching a negative covenant.
	I

Construction contract issues

Decisions by an engineer	See p. 171 for common types of decisions engineers may be asked to make during the execution of a construction contract
Role of the engineer – agent	Two important roles: 1 st as an agent for the owner; 2 nd in a "quasi-judicial" position as certifier between two parties (owner and contractor)
Inspections	Must be carried out to the highest possible standards
Advice to contractors	Be very careful giving advice to the contractors. If the contractor relies on your advice (as expert advice) then you may be open to liability incurred.
Drawings	Drawings and specifications must be very thorough and detailed to avoid disputes.
Inquiries from contractors	Must be answered promptly and carefully to avoid delay and interference claims by the contractors.
Expenses due to delay	If a contractor is going to claim additional expenses due to delay they must give timely notice to the client (not bill extra after the job is done)
Risks	 should be carefully assessed during development of the contract risk assumed by each party should be equitable and should be based on their position to assess and manage the particular risk
CCDC	Canadian construction documents committee – publishes standardized construction contract forms

Bonds	Contracts in which "bonding company ("surety") agrees to guarantee the performance of a specified contractual obligation"
	Not insurance because the surety will seek to recover expenses from the principal.
	"the surety indemnifies the obligee against loss arising from principal's failure to perform contractual obligations." p.211
Obligee	Typically the client or owner whom the bond benefits
Principal	Typically the contractor whose work is bonded
Bid bond	Used in tendering to bond a bid
Performance bond	Indemnity is limited to a specified amount related to extra cost, over and above original, needed to complete the work if principal fails to perform
Labour and materials- payment bond	p. 213
Other ways of bonding	Letter of credit can be used in place of a performance bond
Failure to disclose	If the owner fails to disclose important information to the bidders, this is recognized as a bases for the contractor to claim additional compensation, subject to the terms of the contract. P. 217
Alternatives to	ADR: alternative dispute resolution
litigation	- arbitration - partnering
	 project neutral – appoint an independent to follow the project throughout mediation - negotiation
Lien legislation	See p. 244 for provincial differences
Lien (def.)	Dictionary definition – "A legal claim on the property of another for the satisfaction of a debt or the fulfillment of a duty"
Construction lien act	Anyone (contractor, subcontractor) who supplies services or materials for "improvement" (renovation, construction, demolition) to the client is entitled to a lien whether or not there is privity of contract.
Holdback	Owner (client) allowed to retain a percentage (holdback) of the value of the work performed and materials used as the contract progresses until: lien is filed, notice is given that lien is claimed, or period (specified by legislation) after that phase of the work has expired.
Notice of claim	If a notice of claim is received the owner must retain both the holdback amount and amount of claim pending outcome of the lien.

Industrial and intellectual property

Patents	Idea must be: novel, useful, and inventor must demonstrate it can be implemented (i.e. built) to be patentable
Term	Patents are good for 20 years from date of application
Assignment & licensing	Patentee may assign all or part of the patent rights to another party Patent rights can also be licensed, exclusively or non-exclusively, on a royalty fee basis
	Any assignment of rights, or exclusive license, must be registered with the Patent Office
Infringement	Damages can be claimed for infringement through court action. The patentee can also seek an injunction.
Assignment of rights to employer	Typically requires an agreement signed with employer, unless the employee-engineer's job is, by nature, applying their ingenuity to create inventions.
Trade-mark	May be registered, must be distinctive, can be licensed to a 3 rd party. 15 year registration period that can be renewed. Infringement is subject to claim for damages; forging a trademark is a criminal offense.
Copyright	"sole right to produce or reproduce the work, or any substantial part thereof in any material form whatever."
	includes sole right to deliver, or perform the work (lecture, music, etc.)also sole right to publish the work
Copyright term	Persists for 50 years after the author's death
Ownership of copyright	The author may assign the copyright to another party. This entitles the other party to reproduce the work, gain financially from the work, but does not entitle the other party to take credit for creation of the work.
Moral rights	The right to be identified as the author always remains with the author and he/she can insist on being identified. The other moral right is to the integrity of the work, i.e. it can not be altered without the author's permission, or used in association with a product, service, or cause, etc. without the authors permission. Moral rights can be waived, but not assigned
Industrial design	Protects the "look and feel". 5 year term subject to 1 renewal
Trade secret	Must be "know-how" that is unique, reasonable measures have been taken to protect secrecy, and would be of value to competitors. Under these circumstances the court may consider action against a defendant that has "leaked" the information.