Pharmacy technician

Health & Medicine



Unit 1 PART A Pharmacology at Work 1. What are the requirements for dispensing schedule II and III prescriptions? Name some examples of each. Schedule II can only be prescribed in person, unless it's an emergency. Schedule II's dispensing is very strict since it has a high possibility of abuse. An example of schedule II would be morphine, fentanyl and hydromorophone. Schedule III has a moderate potential for abuse. Unlike schedule II which doesn't have refills on prescriptions, Schedule III can be refilled five times within six months. This has to be approved by a physician.

Examples of schedule III are anabolic steroids and codeine with aspirin or acetaminophen. Internet Research 1. Research thecareeroptions for trained pharmacy technicians. Write a short (two to three paragraphs) report outlining the qualifications sought by potential employers and explaining how this course will help you succeed in the job market. List at least two Internet sources. One of the first requirements for being a pharmacy technician is the age, which is 18 years old. Pharmacy technicians usually work under supervision of a pharmacist, meaning they are looking for anyone who has somewhat of a working experience.

They do need someone that they can rely on as far as knowing their information, which means that a well educated candidate is much needed. Dedication andhard workare other minor requirements as well. This course will help me succeed since it provides a very fine background of being a pharmacy technician. There are a lot of different topics that helps any aspiring technician in achieving what they want to achieve in the future. The course offers so many opportunities to grow and expand one's knowledge as a pharmacy technician. Unit 1 PART B Pharmacology at Work 2.

Explain the concepts receptor, agonist, and antagonist. * Receptor: it is a specific protein molecule that communicates with a messenger. The receptors are on the surface, or sometimes within the cell. They work simultaneously with messengers. * Agonist: it enhances natural reactions of the body. It can bind with a receptor, in which gives the same similar cellular response if the messenger and receptor binds. * Antagonist: drugs that does the opposite of the agonist. It will bind with the receptor site, and it will prevent the response, and also it will inhibit the natural reaction as well. 3.

Define half-life. If a drug's half-life is six hours, how long would it take to remove the drug from the body. * Half-life: it is the estimated time that it takes to eliminate drugs from the body. It is written in T1/2. If the drug's half-life is six hours, it would take 30 hours to 42 hours to eliminate the drug. Unit 1 PART C 4. List causes for and discuss altered drug response in the elderly. * There are 4 main changes that causes altered drug response in the elderly. Absorption changes affect the breaking down of the drug. It makes it harder as they age to consume and absorb certain drugs.

Distribution changes are changes in the body composition of an elder. This affects the main distribution of the drugs throughout the whole body. Elimination changes are mainly caused by a weakened kidney. In order to eliminate certain drugs, a healthy kidney is needed. Metabolism changes such as impaired metabolism can also cause altered drug response. All of these changes in an elderly person can affect their drug response, which results to an altered drug response. 5. List and explain three things to keep in mind when dosing a child. * Making sure that the drug dosage is mainly appropriate for the child's age. Carefully check all computations that involve

the height and weight of a child. * Take time to reevaluate the intervals that are given to all the dosages. Unit 2 PART B Diseases and Drug Therapies 2. Explain why you would not mix amphotericin B with normal saline. * Mixing amphotericin B with normal saline can cause precipitation. Amphotericin B is used to interfere with cell wall permeability, which means it cannot be mixed with other drugs that might cause precipitation. 3. Explain how pulse dosing works. * Pulse dosing is a type of dosing that occurs in one week per month.

Pulse dosing can be used to treat fungal nail infections. Unit 3 PART A 4. Discuss local anesthetics. Include (a) advantages and (b) order of function loss. a. Local anesthetics produces transients and it causes a loss of sensation in a certain type of body. The advantages of local anesthetics is that all types of nervous tissues are affected, which includes sensory and motor. It is reversible, but has a recovery in it. b. The order of function loss is as follows: * Pain perception * Temperature sensation * Touch sensation * Proprioception * Skeletal muscle tone 5. Discuss narcotics.

Include (a) reactions and (b) analgesic ladder. a. Narcotics are drugs that alleviate pain. It can cause local spasms and reduced linear movement. Some of the more common effects are less alertness, urinary retention, constipation, drier mouth, and inflammatory process. b. Analgesic ladder: it is a guideline that will help which type of narcotics to use, depending on the pain rate. Unit 3 PART C Dispensing Medications Identify a possible disease state that is being treated. 1. 25 year old woman: Parlodel * Prolactin secretion 2. 10 year old boy: Zarontin * Absence seizures 3. 50 year old man: Parlodel * Parkinson's disease . 50 year old man: Sinemet * Parkinson's disease 5. 20 year old man: Symmetrel * Influenza 6. 50 year old man:

Emsam *Depression7. 50 year old man: Provigil * Excessive Sleepiness 8. 10 year old boy: Ritalin * ADHD 9. 35 year old man: Rilutek * Amyoptrophic lateral sclerosis (ALS) 10. 25 year old woman: Betaseron * Relapsing-remitting MS Unit 4 Part B Diseases/Drug Therapies 6. Discuss the agents used to treatobesitylisted in the chapter and their mechanism of action. * Here are some of the agents used to treat obesity: diethylpropion, phentermine, dextroamphetamine, methamphetamine, and sibutramine.

There are several effects of these drugs such as central nervous system stimulation, GI symptoms of dry mouth, nausea, and also cardiovascular hypertension. Dispensing Medications 7. Which are the most common forms of hepatitis? Which forms should one be vaccinated against? What is meant by at risk? * He most common form of Hepatitis is Hepatitis A. Hepatitis A and Hepatitis B can be vaccinated in order to prevent obtaining the disease. Hepatitis is at risk since it can easily spread if you don't get vaccinated. The different time periods required for Hepatitis vaccinations allows a less risk to spread the disease. Unit 4 Part C

Disease/Drug	Therapies 6.	Fill	in	the	following	chart	with	names	of
appropriate	medications.							Thizai	de
Diuretics	Нус	Methclothiazide							
			Lo	оор	Diuretics	Bumeta	anide	Ethacry	nic
acid Furoser	mide Torsen	nide	Pot	assiu	ım-Sparing	Diur	etics	Amilori	de
Epleronone Spironolactone Triamterene									
Osmotic Diur	etics mannito	ol						- Carbor	nic
Anhydrase	Inhibitor	5		acet	azolamide		met	hazolami	de
			Mi	scell	aneous Diu	ıretics			

Indapamide Metolazone Unit 4 Part D Diseases/Drug Therapies 1. Identify four types of drugs used to treat arrhythmias. List two drugs per group. * Membrane-Stabilizing Agents: Disopryamide and flecainide. * Beta Blockers: acebutolol and atenolol. * Potassium Channel Blockers: amiodarone and dofetilide. * Calcium Channel Blockers: amlodipine and diltiazem. Unit 5 Part A 1. List four ways to block normal muscle function. * By blocking release of ACh * Prevent destruction of ACh at nicotinic receptors * Prevent ACh from reaching nicotinic receptors * Other agents that continuously bind to ACh nicotinic receptors 2. Explain how Ultram works It acts by binding to opiate receptors. It is used for severe and moderate pain. It is slow, but when it begins to act, paint control appears to be equal to what narcotics provide. Unit 5 Part B 3. List the symptoms of diabetes* Infections that are frequent * Glycosuria * Polyuria and Nocturia * Vomiting, weight loss, nausea, visual changes * Slow wound healing 4. List and identify the differences in the thyroid medications. * There are two types of thyroids that are needed of medications. Hypothyroidism is treated with levothyroxine or thyroid extract in comparison to Hyperthyroidism which is treated with propylthiouracil and methimazole.

Unit 5 Part C 1. Define the terms fungicide, disinfectant, germicide, and antiseptic. * Fungicide: Chemical compounds or biological organisms used to kill or inhibit fungi or fungal pores. * Disinfectant: It has the ability to inhibit all forms of infectious organisms without being toxic to the patient or inducing sensitization of human tissues. * Germicide: Ability to destroy microorganism. * Antiseptic: Used to disinfect instruments and to treat accessible infection in the oral cavity and the body surfaces. Unit 6 Part A 2.

Define remission Remission is the condition in which a tumor is inactive with no cell division or growth which is the main goal for chemotherapy. 3. Define resistance * Resistance is the lack of responsiveness of cancer cells to chemotherapy. Unit 2 Part A Internet Research 2. Research one of the disease states mentioned in this chapter. Write a short report that describes the disease, its etiology, signs, symptoms, and treatments. List your Internet sources. Chlamydia Description: Chlamydia is a disease caused by bacteria, Chlamydia trochamatis. It is often transmitted sexually, and is one of the most common STDs.

Etiology: Chlamydia trochamatis is a bacteria that requires a host. The bacteria react differently in males and females. Signs and Symptoms: Male symptoms include burning sensation while urinating, discharge from the penis, tenderness of the testes, and rectal discharge. Female symptoms include burning sensation while urinating, rectal pain, pain while having sexual intercourse, and discharge from vagina. The signs can be tested by sampling discharge from urethra from males, while cervical secretions from females. Treatments: Antibiotics work well against bacteria related disease.

Some of the treatments are tetracyclines, azithromycin, or erythromycin. Internet Resources: http://www. ncbi. nlm. nih. gov/pubmedhealth/PMH0002321/ Chapter 3 Part B Internet Research 1. Find Internet resources listing potential drug andfoodinteractions for three of the antidepressants discussed in this chapter. Do you think the information provided on these sites is reliable? Why or why not? Create a table listing the drugs you researched along with their corresponding drug and food interactions. Internet http://www. cfids. resources:

org/resources/antidepressants. sp The information provided on this specific website is reliable. There are a lot of sources provided that supports whatever was provided. All of the information listed is also consistent in comparison to the book that we are using for the course. Medication: Interactions: Bupropion Do not take if there is a history of an eating disorder FluoxetineMultiple potential drug and food interactions VenlafaxineCaution if high blood pressure, heart, liver, or kidney disease is present; take with food MitrazapineSpecial warnings; potential drug interactions

Unit 4 Part A 2. Select three prescription medications discussed in the chapter. Locate the manufacturer's Web site for each. Describe your process for finding the manufacturer: Did you need to go to another Web site first or did a search on the drug name lead you directly to the site? What type of information was available on the manufacturer's site? Did it list side effects? Did it list indications and contraindications? Create a table with the manufacturer's Web site address and a brief description of the site's information related to that particular drug.

Drug: Ipratropium-albuterol (Combivent) Web site address: http://www.combivent.com/ Brief description (from the website): Combivent is the only short-acting bronchodilator that provides 2 different medicines in a single metered dose inhaler. Drug: Dextromethorphan (Delsym) Web site address: http://www. delsym. com/cough-medicine? utm_source= google&utm_medium= cpc&utm_term= delsym&utm_campaign= delsym Brief description (from the website): Delsym is the #1 recommended Over-The-Counter single active ingredient cough suppressant among Internists

From the two websites listed, the manufacturers listed every information that the consumers need. All I needed to do was google search it and the website will be the first one to pop out. Some of the information available were the side effects, indications and also contraindications. Unit 6 Part B Internet Research 3. Herbal medicines have become increasingly popular. Use the internet to research two of the herbal remedies covered in this chapter. List two or three medicinal benefits as well as precautions of use for each. List your Internet sources.

Herbal Medicine 1: Ginseng Source: http://www. herbalremedypro. com/ginseng. htm Medical Benefits: It is used for sufferers of libido. Ginseng can also boost one's immune system. Lastly, it can control blood sugar as well, which can help many diabetic patients. Precautions: Not taking ginseng along with other medications, and also you cannot take ginseng under certain conditions such as being pregnant. Herbal Medicine 2: Valerian Source: http://tlc. howstuffworks. com/family/valerian-herbal-remedies. htm Medical Benefits: It is mainly used to cureanxietyand lack of sleep.

It is also a bath additive which relaxes the body. Precautions: One of the main precautions is justdrug abuse. Explain whyprofessionalismis important to the pharmacy technician. Visit pharmacies in your area and observe the pharmacists and technicians working there. What characteristics do they exemplify? Professionalism is such an important aspect of any job in the medical field. The reason is because you have to be able to keep things in confidentiality, which requires professionalism. Another aspect of professionalism would beloyaltyand trust that you will do your job rightfully.

When I visited my local area to observe pharmacists and technicians, the first thing I see is the way they handle themselves. Every costumer that comes up to them they already knows what to do. All the protocols and everyday procedures, they do it with little effort. Even though they are composed well, majority of them have nice approachable personalities still. One thing about being professional is the ability to be approached by a customer. Overall the characteristics of these jobs interest me, because I myself have certain qualities that are perfect to be a pharmacy technician.