Project pickings essay



Tazer. a pharmaceutical fabrication company. entered the pharmaceutical market 12 old ages ago with the debut of six new drugs. Five of the six drugs were merely substitutions of bing drugs and hence did non sell really to a great extent. The 6th drug. nevertheless. addressed high blood pressure and was a immense success. Since Tazer had a patent on the high blood pressure drug. it experienced no competition. and net incomes from the high blood pressure drug entirely kept Tazer in concern.

During the past 12 old ages. Tazer continued a moderate sum of research and development. but it ne'er stumbled upon a drug every bit successful as the high blood pressure drug. One ground is that the company ne'er had the motive to put to a great extent in advanced research and development. The company was siting the net income moving ridge generated by its high blood pressure drug and did non experience the demand to perpetrate important resources to happening new drug discoveries.

Now Tazer is get downing to fear the force per unit area of competition. The patent for the high blood pressure drug expires in 5 old ages. 1 and Tazer knows that one time the patent expires. generic drug fabrication companies will teem into the market like vultures. Historical tendencies show that generic drugs decreased gross revenues of branded drugs by 75 per centum. Tazer is hence looking to put important sums of money in research and development this twelvemonth to get down the hunt for a new discovery drug that will offer the company the same success as the high blood pressure drug.

Tazer believes that if the company begins extended research and development now. the chance of happening a successful drug shortly after the termination of the high blood pressure patent will be high. As caput of research and development at Tazer. you are responsible for taking possible undertakings and delegating undertaking managers to take each of the undertakings. After researching the demands of the market. analysing the defects of current drugs. and questioning legion scientists refering the promising countries of medical research. you have decided that your section will prosecute five separate undertakings. which are listed below:

Project Up Develop an antidepressant that does non do serious temper swings. Undertaking Stable Develop a drug that addresses manic-depression. Undertaking Choice Develop a less intrusive birth control method for adult females. Project Hope Develop a vaccinum to forestall HIV infection.

Undertaking Release Develop a more effectual drug to take down blood force per unit area. CASE 8. 2 Undertaking PICKINGSIn general. patents protect innovations for 17 old ages. In 1995. GATT statute law widening the protection given by new pharmaceutical patents to 20 old ages became effectual. The patent for Tazer's high blood pressure drug was issued prior to the GATT statute law. nevertheless. Therefore, the patent merely protects the drug for 17 old ages. For each of the five undertakings, you are merely able to stipulate the medical complaint the research should turn to, since you do non cognize what compounds will be and be effectual without research.

You besides have five senior scientists to take the five undertakings. You know that scientists are really temperamental people and will work good merely if they are challenged and motivated by the undertaking. To guarantee that the senior scientists are assigned to undertakings they find actuating, you have established a command system for the undertakings. You have given each of the five scientists 1000 command points. They assign commands to each undertaking, giving a higher figure of command points to undertakings they most prefer to take. The undermentioned tabular array provides the commands from the five single senior scientists for the five single undertakings: CASE 8. 2 PROJECT PICKINGS 403

Undertaking Dr. Kvaal Dr. Zuner Dr. Tsai Dr. Mickey Dr. RollinsProject Up 100 0 100 267 100Project Stable 400 200 100 153 33Project Choice 200 800 100 99 33Project Hope 200 0 100 451 34Undertaking Release 100 0 600 30 800You decide to measure a assortment of scenarios you think are likely. (a) Given the commands, you need to delegate one senior scientist to each of the five undertakings to maximise the penchants of the scientists. What are the assignments? (B) Dr. Rollins is being courted by Harvard Medical School to accept a teaching place. You are contending urgently to maintain her at Tazer, but the prestigiousness of Harvard may entice her off. If this were to go on, the company would give up the undertaking with the least enthusiasm. Which undertaking would non be done?

(degree Celsius) You do non desire to give any undertaking. since researching merely four undertakings decreases the chance of happening a breakthrough new drug. You decide that either Dr. Zuner or Dr. Mickey could take two undertakings. Under these new conditions with merely four senior

scientists. which scientists will take which undertakings to maximise penchants? (vitamin D) After Dr. Zuner was informed that she and Dr. Mickey are being considered for two undertakings. she decided to alter her commands. The following tabular array shows Dr. Zuner's new commands for each of the undertakings:

Project Up 20Project Stable 450Project Choice 451Project Hope
39Undertaking Release 40Under these new conditions with merely four
scientists. which scientists will take which undertakings to maximise
penchants?(vitamin E) Do you back up the assignment found in portion
(vitamin D) ? Why or why non? (degree Fahrenheit) Now you once more
see all five scientists. You decide. nevertheless. that several scientists can
non take certain undertakings. In peculiar. Dr. Mickey does non hold
experience with research on the immune system. so he can non take Project
Hope. His household besides has a history of manic-depression. and you feel
that he would be excessively personally involved in Project Stable to function
as an effectual undertaking leader. Dr. Mickey hence can non take Project
Stable. Dr. Kvaal besides does non hold experience with research on the
immune systems and can non take Project Hope.

In add-on. Dr. Kvaal can non take Undertaking Release because he does non hold experience with research on the cardiovascular system. Finally. Dr. Rollins can non take Project Up because her household has a history of depression and you feel she would be excessively personally involved in the undertaking to function as an effectual leader. Because Dr. Mickey and Dr. Kvaal can non take two of the five undertakings. they each have merely 600 command points. Dr. Rollins has merely 800 command points because she

can non take one of the five undertakings. The undermentioned tabular array provides the new commands of Dr. Mickey. Dr. Kvaal. and Dr. Rollins: 404 8
THE TRANSPORTATION AND ASSIGNMENT PROBLEMS

Which scientists should take which undertakings to maximise penchants?

(g) You decide that Project Hope and Project Release are excessively complex to be led by merely one scientist. Therefore, each of these undertakings will be assigned two scientists as undertaking leaders. You decide to engage two more scientists in order to staff all undertakings: Dr. Arriaga and Dr. Santos. Because of spiritual grounds, the two physicians both do non desire to take Project Choice. The following table lists all undertakings, scientists, and their commands. Which scientists should take which undertakings to maximise penchants? (H) Do you believe it is wise to establish your determination in portion (g) merely on an optimum solution for an assignment job?