True/False

1) The demand for cosmetic surgery is more elastic than the demand for Botox treatments.

Answer: False
Response: The demand for Botox treatments is more elastic because there are more substitutes for Botox than for cosmetic surgery.
Reference: 2.1 The Demand Curve
Level: Easy

2) A person is willing to pay $50 per visit for physical therapy, but she pays $35 per visit. This person receives a consumer surplus of $85 per visit.

Answer: False
Response: Consumer surplus is the difference between willingness to pay and the actually price paid. In this case, consumer surplus is $50 - $35 = $15.
Reference: 2.1 The Demand Curve/Consumer Surplus
Level: Medium

3) The Water-Diamonds Paradox is illustrated when water, which is essential for life, trades at a higher price than diamonds, which are not essential for life.

Answer: False
Response: The Water-Diamonds Paradox is illustrated when water, which is essential for life, trades at a lower price than diamonds, which are not essential for life.
Reference: 2.1 The Demand Curve/Water-Diamonds Paradox
Level: Medium

Multiple Choice

4) The market demand curve for aspirin
a) is measured at a specific time and place.
b) is comprised of all the individual demand curves.
c) is a marginal benefit curve.
d) slopes downward because the benefit from the tenth aspirin is much less than the benefit from the first aspirin.
e) all of the above.

Answer: e
Reference: 2.1 The Demand Curve
Level: Easy

5) A podiatrist fits about 45 patients per week with new orthotic shoe inserts. She finds that by reducing the price of a follow-up visit from $30 to $20, the number of patients returning for a follow-up visit increases from 15 to 25. Further reducing the price from $20 to $5 increases the number of follow-up visits to 30.

a) Marginal revenue (MR) generated by the price reduction from $30 to $20 is -50.
b) Marginal revenue (MR) generated by the price reduction from $20 to $5 is 350.
c) The elasticity of demand between quantity demanded of 15 and quantity demanded of 25 is -1.25.
d) The elasticity of demand between quantity demanded of 25 and quantity demanded of 30 is -1.25.
e) The elasticity of demand increases as one travels down the demand curve.

Answer: c
Response:

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Reference: 2.1 The Demand Curve/Marginal Revenue
Level: Difficult

6) Price elasticity measures the:
a) change in quantity per unit change in price.
b) change in price per unit change in quantity.
c) percentage change in quantity for each 1% change in price.
d) price sensitivity when quantity purchased changes.
e) quantity divided by price.
7) If my dentist decides to lower the price of teeth whitening treatments, total sales (revenues) for treatments will go up if:
   a) excess supply for teeth whitening services exists.
   b) price elasticity is less than one.
   c) price elasticity is greater than one.
   d) excess demand for teeth whitening services exists.
   e) price elasticity of demand has changed.

Answer: c
Reference: 2.2 The Supply Curve
Level: Easy

8) Price discrimination
   a) is an unethical way physicians charge wealthier patients more than other patients.
   b) occurs when the federal government gives fewer funds for Medicaid programs to higher income states.
   c) is easily practiced when goods and services can be purchased at lower prices and resold at higher prices.
   d) is only practiced by monopolists.

Answer: b
Reference: 2.3 Price Sensitivity/Price discrimination
Level: Medium

9) Health economists observe individuals’ willingness to pay by observing not only cash transactions, but also by observing patients’ time spent waiting and/or pain endured to obtain medical services. Examples of observable, non-cash prices paid by patients include all of the following, except
   a) a caretaker waits nine months for a family member to receive nursing home care.
   b) a patient undergoes experimental cancer vaccine to arrest the growth of a tumor.
   c) a patient pays another patient $50 to trade places in the queue at the free clinic.
   d) an elderly patient waits eight hours to see a doctor for free at a famous eye clinic.
   e) a morbidly obese patient must undergo six months of nutrition counseling prior to undergoing surgery to induce weight loss.
Answer: c
Reference: 2.4 Is Money the Only Price?/Non-cash Prices
Level: Easy

10) A supply curve does all the following, except
a) uses the ceteris Paribus assumption.
b) holds constant time, place, income, cost of inputs, cost of substitutes, and suppliers’ expectations about future prices.
c) shows quantity producers are willing and able supply at each price.
d) shows consumers’ marginal benefit for each unit produced.
e) shows the opportunity cost to consumers over various quantities.

Answer: c
Reference: 2.5 Inputs and Production Functions/Supply Curve
Level: Easy

11) The Principle of Diminishing Marginal Returns means
a) the more a good is consumed, the lower the average benefit from consumption.
b) the more of a good that is produced, the greater the benefit of the last good to the supplier.
c) the less of a good that is produced, the greater the average productivity of inputs.
d) The more of a good that is produced, the lower the productivity of the last input to production.
e) the more of a good that is produced, the greater the marginal productivity of the last input.

Answer: d
Reference: 2.6 Markets: The Intersection of Demand and Supply/Diminishing Marginal Returns
Level: Medium

12) Under the assumptions of perfect competition
a) price acts as a rationing mechanism and one market equilibrium price and quantity combination is reached.
b) equilibrium occurs where marginal revenue is greater than marginal cost.
c) income and the price of substitutes vary along a demand curve.
d) price discrimination is possible.
e) people willing to pay less than the market clearing price are able to purchase health care services.

Answer: a
Reference: 2.7 Need versus Demand
Level: Easy
13. The production of health can be viewed as a function of several inputs. Empirical evidence suggests that
   a.) medical care is the most important input to health outcomes in the past 150 years.
   b.) environmental, heredity and per capita income are more important factors than medical care
      in improving health outcomes in the past 150 years.
   c.) increased health care spending in the U.S. is possible without transferring scarce resources
      away from other areas.
   d.) individuals have little control over personal choices such as exercising and avoiding smoking
      cigarettes.
   e.) the demand for health is a derived demand.

   Answer: b
   Reference: 2.8 The Production of Health
   Level: Easy

14) The need for medical care and the demand for medical care
   a.) are never the same.
   b.) depend on the perspective of physicians, patients, and third party payers.
   c.) are the same when third party payers, such as insurance companies, agree to pay for the
      services doctors recommend.
   d.) can both be limited by government action.
   e.) can both be limited by increased income.

   Answer: b
   Reference: 2.7 Need versus Demand
   Level: Easy

15) Achieving economic efficiency in the market for hospital emergency room services differs
    from the perfectly competitive model because:
    a) making dynamic technological advances means that some current efficiency must be
       sacrificed.
    b) management of personnel and technological inputs must be made in the face of certainty
       about medical outcomes.
    c) issues of access to services only matter in the perfectly competitive model.
    d) demand for emergency room care is highly elastic.
    e) cost minimization efforts might conflict with broader societal goals of compassion and
       palliative care in the emergency room.

   Answer: e
Fill-in-the-Blank

16) Professional evaluations are required to assess an individual patient’s ______ for medical care while observations of ______ enable economists to determine a demand curve for medical care services.

Answer: need; behavior
Reference: 2.1 The Demand Curve
Level: Easy

17) Despite the empirical evidence that ______ is not the most important determinant of an individual’s health, much of the focus of health economics studies is concentrated on ______ because individuals have very little control over other inputs to health such as ______.

Answer: medical care; medical care; [genetics, environment, childhood, nutrition/lifestyle, biological limits]
Reference: 2.8 The Production of Health/Determinants of Health
Level: Medium

18) Costs to individuals such as pain, risk of death and time spent waiting are considered ______ of a treatment to patients and provide no benefit to health care providers.

Answer: non-cash costs
Reference: 2.4 Is Money the Only Price?/Non-cash Prices
Level: Easy

19) A physician takes a 20 hour per week position at the local hospital. She has two preschool age children and regularly turns down overtime work at $250 per hour. Economists calculate the opportunity cost of one hour of time spent outside work as equal to a minimum of ______ per hour.

Answer: $250
Reference: 2.4 The Labor-Leisure Choice
Level: Easy

20) A physical therapy treatment can use a high tech machine to massage patients or a certified massage therapist. If the cost of the machine per unit of service is $100 and the cost of the therapist per unit of service is $50, then the health care provider faces a trade off of _______ unit of labor for each _______ units of capital.

Answer: 2; 1
Reference: 2.3 Price Sensitivity/Price discrimination
Level: Medium

Essay

21) Why is it easier to measure the effects of smoking on individual’s health than it is to measure the effects of anti-smoking campaigns on health? Be sure to discuss the idea of medical care as derived demand.

Answer: We can measure the number of deaths attributable to lung cancer and other diseases which have been conclusively linked to cigarette smoking. We can measure the dollars spent on treating such cancers. It is relatively easier to measure the dollars spent on anti-smoking advertising campaigns than it is to measure improvements in the quality of life for those who live longer, healthier lives because they do not smoke. Recognizing that the demand for services to treat emphysema or lung cancer is really a derived demand for health points to the production of health as having several inputs: medical care when one is sick and behavioral choices when one is healthy.
Reference: 2.7 The Production of Health/Derived Demand
Level: Medium

22) A hospital marketing department in one of the wealthiest zip codes in Rich State determines that for local residents with incomes greater than $250,000 per year, the income elasticity of demand for boutique maternity services is 1.0. Price elasticity of demand is found to be 0.4. Boutique maternity services feature wireless connections, designer decorated private suites and personalized websites for sharing births. Use the idea of income elasticity to explain why, during a recession, when incomes decrease, a revenue maximizing hospital might introduce a high priced, luxury maternity unit targeted at high income families.
Answer: The 1.0 income elasticity for luxury maternity services means that if income decreases by 1.0%, then the quantity demanded of services decreases by 1.0%. On the other hand, if income increases by 1.0%, then the quantity demanded for services increases by 1.0%. The 0.4 elasticity of demand for luxury maternity services means that if price increases by 10%, then the quantity demanded of services decreases by 4%. Increasing price results increases in revenue to the hospital.

Reference: 2.3 Price Sensitivity
Level: Difficult

23) Use the concepts of management and economic efficiency to explain why a hospital does not charge more for an MRI performed during an emergency room visit than it does for an MRI performed on a scheduled basis.

Answer: Management of labor and capital means that managers must interpret economic rules for maximizing profit into behavioral norms. Emergency care represents an inelastic demand. If a person is facing uncertainty in a life or death situation, her demand for a service such as an MRI will be highly inelastic. A profit maximizing firm, following economic theory, would be rational to increase the price of the service; however, most hospital patients would consider it distasteful to pay more for an emergency room service than for a regularly scheduled service such as the MRI under such circumstances.

Reference: 2.3 Price Sensitivity/Price discrimination AND 2.9 Efficiency
Level: Difficult

24) Explain why purchasing an eye examination and a new pair of eyeglasses is much more like the ceteris paribus assumptions of a perfectly competitive market than the purchase of an appendectomy.

Answer: Third party payers are much less likely in the case of the eyeglass purchase. The price for a patient without insurance for eyeglasses will be very close to the price for a patient with insurance. For a person buying eyeglasses, the need and the purchase are generally not emergencies. For a person undergoing an appendectomy, the procedure is generally brought on by an emergency attack of appendicitis. The surgery to remove the appendix will be more likely to be covered by a third party payer. While a person may have very strong preferences about which type of glasses to choose, a person is less likely to care about the specifics of the surgery in the emergency situation.

Reference: 2.8 The Production of Health/What Makes Medical Care Different
Level: Medium
25) Licensure of physicians means that to some extent, the supply of physicians can be viewed as a vertical line. Explain what this means for the price of physician services. How might this change over time?

Answer: This means that, absent any other outside factors such as third party payers, physicians have monopoly power over prices. Since the government has influence over Medicare and Medicaid payments to physicians, this effect is softened; however, efforts to reduce payments to physicians for Medicare and Medicaid have been overturned in the congress. Other ways to increase the supply of physicians are to increase the number of physicians trained at institutions outside the U.S. Finally, allowing physician assistants or nurse practitioners to perform services traditionally reserved for physicians also might change the supply curve for physicians.

Reference: 2.6 Markets: The Intersection of Demand and Supply

Level: Medium