

**ENGR 192A**  
**Entrepreneurial Opportunities in Healthcare and Life Sciences**  
**Exam #2**  
**ANSWER SHEET DUE NOVEMBER 10 BY START OF CLASS**

For each of the questions, write the letter corresponding to your answer in the appropriate box on the answer sheet (attached). All questions are based upon the lectures or textbook, and you may use these as references. You may NOT use any living being as a source of information.

1. Choose the answer that is the MOST CORRECT regarding the purpose of hospitals before the 20<sup>th</sup> century:
  - a. Were primarily research centers
  - b. Were places for the care of those who were dying
  - c. Were primary care facilities
  - d. Were able to apply many new innovations to treat chronic diseases
2. Choose the answer that is TRUE concerning modern general hospitals:
  - a. Have simple organizational structures
  - b. Have easy-to-measure metrics of quality and outcomes
  - c. They are highly focused business models
  - d. Continuous innovation has overshot the needs of many patients
3. Choose the best example of a Solution Shop function in a general hospital:
  - a. Surgical suites specialized for cardiac surgery
  - b. Group therapy workshops for management of chronic disease
  - c. A state-of-the art medical imaging facility
  - d. Clinics that provide rules-based therapies
4. National Jewish Medical and Research Center is an example of :
  - a. A successful mixed business model
  - b. An integrated solution shop
  - c. A value-added process facility
  - d. A facilitated network model
5. According to Christensen, the first wave of disruption in the hospital industry will be:
  - a. The separation of the business models into distinct institutions
  - b. The modernization of cost-accounting systems
  - c. Changes in the way hospitals are reimbursed
  - d. The closing of many small municipal hospitals
6. Choose the statement that is TRUE:
  - a. Retail clinics are disruptive innovations because of their capabilities as solution shops
  - b. The meaning of "quality" is insensitive to the level of innovation
  - c. Speed and convenience will demand a premium price in products that are low in innovation
  - d. Better performance and reliability are more valuable to customers when the product or service is low on the innovation scale
7. Choose the statement that is FALSE:
  - a. Approximately 25% of physicians in the U.S. specialize either in family practice or internal medicine
  - b. Practicing physicians in the U.S. often require 10 to 15 years of education and training after high school
  - c. Most physician practices are single focus business models
  - d. Retail clinics are characterized by convenience based on precision medicine

8. Which of the following is the BEST example of a fee-for-outcome physician practice model?
  - a. A specialist in internal medicine who diagnoses complex diseases
  - b. A psychiatric clinic that utilizes group sessions in treating depression
  - c. An outpatient clinic that specializes in Lasix eye surgery
  - d. A clinic that specializes in wellness examinations
9. Which of the following is NOT mentioned by Christensen as a technology that will assist primary care physicians in disrupting specialist practices?
  - a. Decentralized diagnostic technology
  - b. Web-based diagnostic aids
  - c. Remote consultations
  - d. Robotic surgery technology
10. Electronic health records have not been widely adopted by physician practices because:
  - a. "Pencil and paper" are considered adequate for an individual office
  - b. The costs of any new system would be borne by the physician's practice
  - c. The EHR does not provide any financial leverage for the physician practice
  - d. All of the above
11. EHRs are MOST likely to be adopted through the process of:
  - a. Virtualization
  - b. Physician mandate
  - c. Acceptance of a universal electronic standard
  - d. Adoption of the system of a major institution like the Mayo Clinic
12. Christensen believes that an existing system may be a good basis for a broad Personal Health Record. That system is:
  - a. SimulConsult
  - b. Indivo
  - c. Isabel
  - d. RecordIQ
13. Choose the statement that is INCORRECT regarding chronic diseases:
  - a. Account for less than 50% of all drug prescriptions
  - b. Affect 90 million people in the U.S.
  - c. Are strongly correlated to tobacco use and obesity
  - d. Account for over 75% of healthcare costs
14. Chronic illness is a relatively new phenomenon, because:
  - a. Chronic diseases have arisen primarily because of recent environmental influences
  - b. Onset of chronic disease is masked by acute disease therapies
  - c. Technological progress has transformed many once-fatal diseases into chronic ones
  - d. The behaviors that contribute to chronic disease have only recently evolved
15. Which of the following was suggested as the best business model to diagnose and treat complex, intuitive-medicine chronic diseases:
  - a. A general hospital
  - b. A retail clinic
  - c. A traditional primary care physician practice
  - d. A coherent multi-specialty practice
16. Which of the following was suggested as the best business model to diagnose and treat better-understood chronic diseases with best practices or rules-based approaches:
  - a. A general hospital
  - b. A retail clinic
  - c. A traditional primary care physician practice
  - d. A coherent multi-specialty practice

17. In Christensen's Chronic Quadrangle, which of the following is NOT considered a behavior -dependent disease with deferred consequences:
- Congestive heart failure
  - Multiple sclerosis
  - Type II diabetes
  - Alzheimer's disease
18. Safeway's health care plan might best be described as:
- An alignment of financial and physical health
  - A compulsory program that punishes bad behaviors
  - An innovation that is based on new knowledge
  - A low cost, low quality approach to providing employee healthcare
19. Healthways, Inc. is best described as:
- A solution shop provider
  - A non-profit community network
  - A coherent, multi-specialty physician practice
  - A disease management network
20. Which of the following is NOT true regarding insurance in general:
- It is a transfer of risk from one entity to another
  - Premiums are what the insurer demands to accept the risk of a loss
  - Insurers are usually willing to base premiums on the characteristics of small groups of policyholders
  - Insurance coverage often has limits or exclusions
21. Which of the following is INCORRECT regarding "true" insurance
- It covers relatively rare and potentially financially devastating events
  - It may require out-of-pocket payments
  - It is designed to help cover costs of treatments requiring hospitalization
  - It is designed to cover routine visits to a physician
22. Choose the statement that is TRUE:
- Medicaid is administered by both the states and the federal government
  - Medicare is primarily designed for low income families
  - The age of Medicare eligibility is 62
  - Medicare recipients pay no premiums for their insurance
23. XYZ Healthcare is a company that provides health insurance and owns its own network of clinics and hospitals. Reimbursement for care provide by XYZ Healthcare is MOST LIKELY to be:
- Based on capitation
  - Based on fee-for-service
  - Self-pay by the patient
  - Only allowed for acute disease
24. Which of the following is NOT offered as a reason for the increasing costs of healthcare:
- The aging of America and the increase prevalence of chronic diseases
  - Price competition between hospitals in an area
  - "Fee-for-service" reimbursement schemes
  - The lack of transparency of the real costs of care
25. What is the year that Christensen predicts that HDI-HSAs will account for 50% of the health insurance market:
- 2010
  - 2013
  - 2016
  - 2019

26. BONUS QUESTION (worth 4 points): List the four jobs-to-be-done that patients need from health insurance

**ENGR 192A**  
**Fall 2011**  
**Exam 2 Answer Sheet**

Name: \_\_\_\_\_

Perm #: (last 4 digits only) \_\_\_\_\_

1	B	2	D	3	C	4	B	5	A	6	D	7	C	8	C	9	D	10	D	11	A	12	B	13	A
14	C	15	D	16	C	17	B	18	A	19	D	20	C	21	D	22	A	23	A	24	B	25	B		

26. Answer to Bonus Question:

1. Help me and my family become healthy
2. Help us remain healthy
3. Help us achieve financial ability
4. Protect my assets from being taken or destroyed (answer is on p. 243 of Christensen)