

## Mid-Term Exam of Operations Management

Student ID: \_\_\_\_\_ Name: \_\_\_\_\_

(答案寫在最後一頁作答區！)

### I. Multiple Choice: (70%)

1. In addition to operations, which of the following is considered a "line" function?
  - A. accounting
  - B. finance
  - C. IT
  - D. procurement
  - E. sales
2. Which of the following would tend to increase the importance of supply chain management?
  - A. increased supply chain stability
  - B. lower levels of outsourcing
  - C. reduced competitive pressures
  - D. increased globalization
  - E. greater emphasis on local markets
3. Business organization consist of three major functions which, ideally:
  - A. support one another.
  - B. are mutually exclusive.
  - C. exist independently of each other.
  - D. function independently of each other.
  - E. do not interface with each other.
4. Which of the following is least likely to affect the cost an organization incurs in producing its products or services?
  - A. price
  - B. productivity
  - C. location
  - D. quality
  - E. inventory management
5. Where a firm locates would typically NOT affect that firm's:
  - A. costs.
  - B. convenience for customers.
  - C. delivery times.
  - D. strategy.
  - E. transportation costs.

6. The key to successfully competing is understanding what customers want and then \_\_\_\_\_ satisfy those wants.
- A. training production workers to
  - B. finding suppliers who can
  - C. finding the best way to
  - D. designing products and services that
  - E. hiring enough workers to
7. An organization's mission statement serves as the basis for:
- A. environmental scanning.
  - B. core competencies.
  - C. operating procedures.
  - D. distinctiveness.
  - E. organizational goals.
8. Which of the following would be least important in the pursuit of a time-based strategy?
- A. cost minimization
  - B. quick changeover times
  - C. operational agility
  - D. reduced complaint resolution times
  - E. flexible technology
9. Competitiveness doesn't include:
- A. productivity.
  - B. effectiveness.
  - C. profitability.
  - D. operations strategy.
  - E. operations cost control.
10. Which of the following is not a key step toward improving productivity?
- A. developing productivity measures for all operations
  - B. improving the bottleneck operations
  - C. establishing reasonable goals for improvement
  - D. considering incentives to reward workers
  - E. converting bond debt to stock ownership
11. For an organization to grow its market share, it must:
- A. advertise using multimedia.
  - B. reduce prices.
  - C. exceed minimum standards of acceptability for its products or services
  - D. establish an Internet Web site.
  - E. broaden its mission statement.

12. The ratio of OUTPUT GOODS to quantity of RAW MATERIAL input is called
- A. nondefective productivity.
  - B. process yield.
  - C. worker quality measurement.
  - D. total quality productivity.
  - E. quantity / quality ratio.
13. With regard to operations strategy, organization strategy should, ideally, take into account:
- A. operations' strengths and weaknesses.
  - B. inventory levels.
  - C. labor productivity.
  - D. product mix.
  - E. production processes.
14. Time-based approaches of business organizations focus on reducing the time to accomplish certain necessary activities. Time reductions seldom apply to:
- A. product/service design time.
  - B. processing time.
  - C. delivery time.
  - D. response time for complaints.
  - E. internal audits.
15. In an assembly operation at a furniture factory, six employees assembled an average of 450 standard dining chairs per five-day week. What is the labor productivity of this operation?
- A. 90 chairs/worker/day
  - B. 20 chairs/worker/day
  - C. 15 chairs/worker/day
  - D. 75 chairs/worker/day
  - E. 60 chairs/worker/day
16. Which of the following is least likely to result in product innovations that have near-term commercial application?
- A. operations blueprinting
  - B. process development
  - C. applied research
  - D. quality function deployment
  - E. basic research
17. Which of the following is an example of a postponement tactic?
- A. mass customization
  - B. standardization

- C. process mapping
  - D. delayed differentiation
  - E. service blueprinting
18. One possible disadvantage of modular design is that:
- A. replacement and repair are more difficult.
  - B. failure diagnosis is more complex.
  - C. the number of configurations of modules decreases.
  - D. individual parts lose their identities.
  - E. inventory problems arise.
19. A software company is weighing whether to release a new version of its software. The company can go ahead and release the version now and correct flaws with subsequent patches or upgrades, or it can wait until the new version is reasonably bug-free. This is an example of:
- A. life cycle analysis.
  - B. value analysis.
  - C. vaporware.
  - D. concurrent engineering.
  - E. design for production.
20. Which of these pairs of functions would tend to be affected most dramatically by a product or service redesign?
- A. Operations and Accounting
  - B. Marketing and Operations
  - C. Finance and Human Resources
  - D. Engineering and Accounting
  - E. Finance and Engineering
21. Incorporating design for disassembly principles in product design helps firms with \_\_\_\_\_ design issues.
- A. legal
  - B. social
  - C. reuse
  - D. reverse engineering
  - E. reengineering
22. Which of the following is not a reason for redesigning a product or service?
- A. to reduce labor or material cost
  - B. to increase the level of employee satisfaction
  - C. to increase the level of customer satisfaction
  - D. to attract and increase customer demand
  - E. to increase quality

23. Mobile phones have evolved from devices intended to place and receive phone calls into handheld multimedia communications devices, but in the eyes of some customers these new features make the phones less desirable. This is an example of:
- A. robust design.
  - B. creeping featurism
  - C. sustainable design.
  - D. quality function deployment.
  - E. component commonality.
24. The research and development activity which starts after positive research results are available and attempts to turn these results into useful commercial application is:
- A. basic research.
  - B. applied research.
  - C. development.
  - D. redesign.
  - E. commercial research.
25. Which of the following is the case where capacity is measured in terms of inputs?
- A. steel mill
  - B. electrical power plant
  - C. restaurant
  - D. petroleum refinery
  - E. airline
26. A Virginia county is considering whether to pay \$50,000 per year to lease a prisoner transfer facility in a prime location near Washington, D.C. They estimate it will cost \$50 per prisoner to process the paperwork at this new location. The county is paid a \$75 commission for each new prisoner they process. How many prisoners would they have to process annually to break even at this new location?
- A. 5,000
  - B. 8,000
  - C. 2,000
  - D. 4,000
  - E. 6,000
27. Which of the following would tend to reduce effective capacity?
- A. suppliers that provide more reliable delivery performance
  - B. reduced changeover times
  - C. more employee cross-training
  - D. improved production quality
  - E. greater variety in the product line

28. Which of the following is not a strategy to manage service capacity?
- A. hiring extra workers
  - B. backordering
  - C. pricing and promotion
  - D. part-time workers
  - E. subcontracting
29. Seasonal variations are often easier to deal with in capacity planning than random variations because seasonal variations tend to be:
- A. smaller.
  - B. larger.
  - C. predictable.
  - D. controllable.
  - E. less frequent.
30. The term "standardization" is closely associated with:
- A. customization.
  - B. high cost.
  - C. longer lead times.
  - D. variety.
  - E. interchangeability.
31. Making plans for how products that have reached the end of their useful lives will be dealt with is the primary subject of:
- A. cradle-to-grave assessment
  - B. end-of-life programs.
  - C. life-cycle analysis.
  - D. three R's programs.
  - E. process mapping.
32. The owner of Firewood To Go is considering buying a hydraulic wood splitter which sells for \$50,000. He figures it will cost an additional \$100 per cord to purchase and split wood with this machine, while he can sell each cord of split wood for \$125. If, for this machine, design capacity is 50 cords per day, effective capacity is 40 cords per day, and actual output is anticipated to be 35 cords per day, what would be its utilization?
- A. 100 percent
  - B. 80 percent
  - C. 75 percent
  - D. 70 percent
  - E. 0 percent

33. Which of these factors would not be subtracted from design capacity when calculating effective capacity?
- A. personal time
  - B. equipment maintenance
  - C. scheduling problems
  - D. changing the mix of products
  - E. all of the choices
34. When buying component parts, risk DOES NOT include:
- A. loss of control.
  - B. vendor viability.
  - C. interest rate fluctuations.
  - D. need to disclose proprietary information.
  - E. product liability.
35. If the output rate is increased but the average unit costs also increase, we are experiencing:
- A. market share erosion.
  - B. economies of scale.
  - C. diseconomies of scale.
  - D. value-added accounting.
  - E. step-function scale up.

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1	B, E	2	D	3	A	4	A	5	D
6	C,D	7	E	8	A	9	C	10	E
11	C	12	B	13	A	14	E	15	C
16	E	17	D	18	C	19	C	20	B
21	C	22	B	23	B	24	C	25	C, E
26	C	27	C, E	28	B	29	C	30	E
31	B	32	D	33	A, E	<b>34</b>	<b>C</b>	35	C

◎ 註：選擇題皆為單選題，有兩答案者為兩者皆可；另，第 34 題送分。

## **II. Essay Questions: (30%)**

1. 請敘述 Intel 總裁 Andy Grove 對於作業管理的定義 (老師第一堂說過) (10%)
2. 簡單闡述作業管理的策略優勢與產能規劃的相關性 (20%)