

DEPARTMENT OF COMPUTER SCIENCE
University of Toronto

CSC 454S/2527S: **THE BUSINESS OF SOFTWARE**

MIDTERM EXAM: BOOKLET #1

26 February 2001, 6:10-7:10 p.m. (1 hour)

OPEN BOOK, OPEN COURSE NOTES

Write all your work in this booklet (10 pages in total).
You will need to refer to the second booklet (6 pages in total).

NAME _____

STUDENT # _____

Answer the following **eleven (11)** questions, making appropriate references to

- the course notes
- the readings (including the articles on Amazon and Tripod)
- visitor presentations (see the material on pages 2-3 of Booklet #2), and
- the executive summaries of three business plans submitted in Winter 2000 (see the material on pages 4-6 of Booklet #2).

Your answers should be as terse and crisp as possible. If you can't say it succinctly, excess verbiage won't help. In fact, it will hurt.

Do not spend too much time on any one question.

Turn this booklet in. You should **not** turn in booklet #2.

Good luck.

SCORE (%) _____ OUT OF 100%
(actually worth 12.5 points out of 100 for the semester)

1. (5 points)

Which of the following phrases (**select all that apply**) *always* represent forms of *competitive edge* for a software company?

- a) Distinctive competence
- b) Proprietary technology
- c) Low price
- d) Market knowledge
- e) Spending a lot on advertising
- f) Ease of use for the company's technology
- g) Experienced management
- h) A large roster of employees

2. (5 points)

Which of the following statements (**select all that are true**) are true?

- a) Microsoft has adopted structured software engineering practices such as those recommended by the Software Engineering Institute.
- b) Microsoft uses a variation of the well-known "waterfall development process" to develop reliable software cost-effectively.
- c) Microsoft's ability to redirect development in response to market needs is great enough that it has been able to dispense with a planning and goal setting phase at the beginning of each new project.
- d) Microsoft's "synch-and-stabilize" software development process includes monthly software "builds" to ensure that the pieces are all coming together properly.
- e) Microsoft typically assigns 1 tester to every 4 programmers.

3. (10 points)

Brandt's second commandment is: *Define the business of the enterprise in terms of what is to be bought, precisely by whom, and why.* Define, in 20-40 words each, the business of the following enterprises:

a) Tripod

b) Novator Systems (Mark Fox, presenter)

4. (5 points)

Brandt's third commandment is: *Concentrate all available resources on accomplishing two or three specific, operational objectives within a given time period.* For the following enterprise, define in 20-40 words what you feel is **the single most salient** specific, operational objective and indicate what is the appropriate time period.

- CSC454 Winter2000 Group 4: Med Mobility (see page 13)

5. (12 points)

The CEO of Virtual Integrated Leading-Edge Systems Inc. included the following paragraph in a report to his Board of Directors. Fill in the missing words or phrases:

“The last quarter’s performance gives us increased optimism in our ability to penetrate our very carefully chosen _____. Our proprietary technology and understanding of customer needs constitute the _____ which enables us to increase our _____ each quarter. Luckily, the large potential competitors that may be contemplating entering our space have probably missed the _____ before we and existing players have entrenched positions. We continue to solidify our position with _____ protection such as patents and with intensive public relations, in order to erect further _____ designed to ensure that these large firms decide not to compete.”

6. (7 points)

Consider the kind of *product positioning* space we have discussed in the course. Consider The Business of Software course as a product that is in competition to attract students with Introductory Computer Science, Operating Systems, Introductory Accounting, and Advanced Marketing. Draw a two-dimensional positioning space, label the axes, and position the five courses within the space.

7. (10 points)

Consider the term *user benefit* as used by Rich and Gumpert. Develop a 20-40 word user benefit claim that could credibly be made by each of the following companies, and be sure to make it clear who the *user* is:

a) CSC454 Winter2000 Group 10: Mobile Parking

b) Janna Systems (Bill Tatham, presenter)

8. (12 points)

Two of our guest entrepreneurs, Ron Riesenbach of Telepresence Systems and Mark Fox of Novator Systems, are planning transitions of their firms from purely service companies to organizations in which products are viewed as the prime driver of future growth. List, in 5-10 words each, four reasons why such a transition is challenging:

a)

b)

c)

d)

9. (9 points)

Bell and McNamara list a number of Product Flaws in their book. For each of the following, indicate how CSC454 Winter2000 Group 6: Softex (see page 14) could avoid the flaw or minimize the risk that it will affect them:

a) Having technology but no product

b) Building an incompatible product

c) Developing a product specification that ignores a critical application requirement

10. (10 points)

The length of an elevator ride depends upon the height of a building and the speed of the elevator. The length of an elevator pitch depends on the length of time available to make the pitch. For example, breakfast meetings of the Toronto Venture Group include over 125 presentations to be made in 30 minutes. This means that each speaker gets say his or her name, company name, "serial number," and a 10-25 word description of the company.

Write a 10-25 word (not counting the company name) elevator pitch for:

a) Perceptual Robotics (David Abrams, Presenter)

b) CSC454 Winter2000 Group 6: Softex (see page 14)

11. (15 points)

Write a 50 to 75 word elevator pitch for CSC454 Winter2000 Group 6: Softex (see p. 14).

THIS IS THE END OF THE EXAM.

PLEASE CHECK YOUR WORK.