**INSS 300**

**Spring 2011**

**FINAL EXAM**

**DUE DATE: 05/14/2011 (10 pm)**

**You have 2 and a 1/2 hours to do the EXAM**

**Finish the exam in ONE sitting**

**(You can submit it ONLY ONCE)**

**MUST BE DONE INDIVIDUALLY**

**READ THE INSTRUCTIONS CAREFULLY!!!!!!!!**

**NO LATE SUBMISSION!!!!!!!**

**Note:**

* **MUST POST FINAL EXAM IN A WORD FILE IN WEBTYCHO under final exam tab.**
* **Do not copy and paste the exam TEXT in your portfolio or submission area. Create a WORD file and post that file in webTycho under FINAL EXAM tab.**
* Once you post the file you will see it in your portfolio also, check to make sure that it is the correct file and posted properly.
* e-Mail me for any general clarifications
* **Exam is to be done individually**
* **Plagiarism or copying will be reported and appropriate action will be taken and both students will get 0**
* **Honesty and integrity is expected**
* Do not e-mail me the exam, it will NOT be counted.

# EVIDENCE FORM

**I have read UB’s policy on cheating and plagiarism (see UB’s website for more information). I have done all work myself with no HELP from anybody. Please put your name in the line below to certify the above statement.**

**Name NOWAKOWSKI, JASMIN**

 **Last First**

**Total Points 60**Answer the following multiple choice questions

(Circle or put a check mark (X) next to the correct answer)

**(25 points)**

Q1. Pho\_r\_us has just started a website and they are getting 500 hits per day. This is not satisfactory based on industry standards. They revamped their website and are now getting 5000 hits per day. This, however, has not increased their web sales. Pho\_r\_s web site is

 A) Both efficient and effective

 B) Efficient but not effective X

 C) Neither efficient nor effective

 D) Effective but not efficient

Q2. Each team has only one home stadium and each stadium can have many home teams. This is an example of what kind of relationship between TEAM and STADIUM?

A) 1:1

B) 1:many X

C) Many: many

D) None of the above

Q3. What are project deliverables?

 A) A temporary endeavor undertaken to create a unique product or service

 B) The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project

 C) Any measurable, tangible, verifiable outcome, result, or item that is produced to complete a project or part of a project X

 D) Represent key dates when a certain group of activities must be performed

.Q4. Accounts\_r\_us provides payroll services to its clients throughout the world. On April 12, 2008 there was an earthquake that destroyed part of their headquarters in Los Angeles. They temporarily moved the employees to nearby San Diego facility which they also own. Employees were able to work normally at this facility. San Diego facility is most likely an example of a:

1. Collocation Facility
2. Cold site

C) Hot site X

D) None of the above

Q5. Mr. Smith is in New York and needs to talk to his kids in California. What emerging technology would be most suitable?

 A) Biometrics

 B) CAVE X

 C) RFID

 D) Digital Dashboard

Q6. What is a Web site in which items are posted on a regular basis and displayed in reverse chronological order?

 A) RSS X

 B) Podcasting

 C) SEO

 D) Blog -( these are in chronological order)9

Q7. Finding patterns in large amount of data that are not immediate obvious is

called

1. data mapping
2. data warehousing X
3. OLAP
4. None of the above

Q8. When a system is developed too rapidly and informally, the most common problem is

 A. report overload

 B. database deluge X

 C. vanishing documents

 D. excessive keypunching

Q9. What is the ability to purchase goods and services through a wireless Internet-enabled device?

 A) Mobile commerce X

 B) Telematics

 C) Electronic tagging

 D) Radio frequency identification

Q10. What represents a session where employees meet, sometimes for several days, to define or review the business requirements for the system?

 A) JAD session X

 B) Business requirement

 C) Requirements definition document

 D) Sign-off

11. Which of the following describes e-commerce?

 A) Buying products from each other

 B) Buying services from each other

 C) Selling services to/from each other

 D) All of the above X

12 Strategic managers are the highest level of hierarchy and they prefer

* 1. mostly external, detailed information
	2. mostly external, summarized information
	3. mostly internal, summarized information
	4. mostly internal, detailed information X

13 Strategic planning is part of the system.

 a. transaction d. expert systems

 b. decision support e. executive support systems

 c. management information X

14. World\_r\_US has offices in Paris, Bangkok, London, Dublin, Miami and Salvages. They want fully connect all sites. How many maximum connections are possible?

 A) 12.

 B) 15. X

 C) 6.

 D) None of the above.

15.. Which AI system can be “trained” to recognize patterns?

 A) Expert system

 B) Neural network X

 C) Genetic algorithm

 D) Intelligent agent

16 . The old system and the new system are run in tandem using the approach.

 a. crash conversion

 b. pilot

 c. phased

 d. deferred

 e. parallel X

17 . A(n)\_\_\_\_\_\_\_\_\_consists of a hardware or software designed to keep unauthorized users out of network system

 a. encryption systems

 b. alarm system

 c. firewall X

 d. ERP systems

 e. SDLC

18 In general, given two entities FATHER and CHILD, what’s the nature of relationship between FATHER and CHILD. Assume father is biological father.

1. 1:1 X
2. 1:M (many)
3. M (many) : N (many)
4. None of the above

19. When a system is developed too rapidly and informally, the most common problem is

 a. report overload

 b. database delugeX

 c. vanishing documents

 d. excessive keypunching

 e. unwieldy spreadsheets

20. An information system developed to handle crisis situation is called a (n) system.

 a. accounting system d. management information system

 b. transaction processing system e. expert system X

 c. decision support system

21. An ATM card is an example of which form of biometric security?

 A) What you know

 B) Who you are

 C) What you have X

 D) What you can do

22 What technology are many organizations implementing to streamline supply chain management?

 A) RFID X

 B) Biometrics

 C) RFPC

 D) Haptic interface

23. Given a customer record with fields customer\_name, customer\_address, customer\_balance, what part of DBMS can be used to describe these fields

1. DDL
2. DML
3. SQL X
4. None of the above

24. Given the following relation

BOOK (book\_ID, author\_NUM, date\_published). Assume a book can be written by only one author but an author can write many books. What would be appropriate primary key?

1. book\_ID X
2. book\_ID, Author\_NUM
3. Author\_num
4. None of the above

25 What is a subset of a data warehouse in which only a focused portion of the data warehouse information is kept?

 A) Data mining tool

 B) Data mart X

 C) Data factory

 D) None of the above

Ques #2 .Discuss the following statements, be precise. must relate to concepts in the book and/or lectures. Generic answers will not get much credit

(9 points)

a. How can value-chain be used by GIANT food store to identify competitive advantage?

*First of all, a value chain is series of processes that add value to the end product or service. The idea is to find out what processes add value and what processes reduce value. GIANT food store can break down its value chain by focusing on its primary and support value processes. Its primary value processes may include inbound logistics, operations, outbound logistics, marketing and sales, and customer service. The support value processes might be the infrastructure, human resource management, technology development, and procurement. To identify competitive advantage in this realm, giant could put out a survey for its customers asking how they rank in each process compared to their competition.*

b. Expert systems capture human expertise. Will Expert system be ever able to behave like experts? Why or why not?

*An expert system can never be able to behave like experts for many reasons. They cannot deal with problems that are too precise or too vague. They don’t have the intuition that experts have from experience. Also, expert systems do not have common sense or judgment. This could prove to be very dangerous in some situations.*

c. How much should a business look into the background of employees to try to identify those with **potential** problems? What ethical issues arise in this situation?

*A business should obviously look into a potential employees background to see if any potential problems in the realm of legal issues. Seeing if they have a criminal record should be just about all you need to know. Looking into their medical history or personal history is a huge violation of their privacy. I think it I unethical to use information about a person that isnot directly performance or job related against them in any way. Everyone has their right to live their lives the way they choose outside of work. As long as it does not affect their job performance or break any laws, it shoun’t be used to identify potential problems.*

Q # 3

At Viacom International Inc., the New York based parent of MTV, Mr. John Nutt, the CFO teamed with executives from marketing, sales, manufacturing, human resources and contracting to lead the company into new directions. Because financial processes are so intertwined with the processes in other department, he felt that redesigning finance should ideally be part of company-wide effort. Although some turf were inevitable, executives involved in large scale effort to reorganize the company were persuaded to support company-wide efforts.

Some of the goals mentioned were, the new system should allow any department access to “work-in-progress” information. Also, the new system should reduce dependence on paper, particularly financial transactions. Further it should managers more time to analyze the data to make better decisions, rather than spending their time in collecting the data.

(4 points)

a. What system(s) (ex: DSS, GDSS, NN, SCM, CRM, ES, ERP, GIS etc..)would you advice and why?

*I would suggest using an Enterprise Resource Planning System (ERP) because it is a collection of software for all the needs listed above. For example, an ERP can include software for marketing and sales, finances, manufacturing, human resources, and contracting. Some characteristics of ERP that would be useful to the above mentioned company are:*

* *A modular design by business function or department*
* *A centralized database that everyone can access*
* *Functions that work in real time so you can see “work in progress” information*
* *There would be an integrated interface throughout the enterprise*

b. What problems might be encountered in installing this system?

* *If the systems within the ERP do not function correctly the end results will not be correct.*
* *It might be very pricey*
* *Some people may resist learning the new software*
* Ques #4 Identify and discuss **four** emerging technologies (as discussed in the class) that are performing several tasks for the following situation. Must discuss these technologies in **relation to the case below** (how technology is functioning and helping them in each case). Generic answers will not get much credit

(4 points)

Ms Lin and Mr. Johnson are going to Paris . They are stuck in the traffic due to an accident and

will miss their flight on United Airlines. Recognizing this an automated voice-activated system,

after discussing with them, arranges for an alternate flight on Air France. They arrive

at the IAD (Dulles international) airport and are directed by a voice to an empty space “3C” in the international parking lot.

They are cleared through the security by a camera and proceed to boarding gate. They speak their names and are informed by a voice about their seat assignment 5C & 5D and upgrade. When they arrive in Paris they scan their ticket on a machine and their luggage comes rolling in. As soon as they get their luggage their rental car is waiting at the curb to take them to their hotel.

Emerging technology **One**\_\_\_\_ Automatic Speech Recognition\_\_\_\_\_\_\_\_\_\_

(explain how it is helping in the above process)

*Automatic Speech recognition allowed them to communicate with the push technology in the car and receive their seat numbers at the airport. The process of speech recognition is feature analysis, pattern classification, and language processing.*

Emerging technology **TWO**\_\_BIOMETRICS\_\_\_\_\_\_\_\_\_\_\_\_

(explain how it is helping in the above process)

*The biometric technology scanned their bodies when they entered to make sure they weren’t armed in any way. Also, when they were at their gate and spoke their name that might have been biometrics detecting the sound of their voice so they were identified as the right customers. Both uses of the technology made their experience at the airport a lot faster and more safe.*

Emerging technology **THREE\_\_**\_Radio frequency Identification\_\_\_\_\_\_

(explain how it is helping in the above process)

*Their tickets most likely had RFDI on them so that when they were scanned, all the information passed to a main computer that registered that they are who they say they are and the luggage they checked in with, belongs to them. I assume that because of the RFDI, someone who does not belong to the luggage would not be able to take the luggage.*

Emerging technology **FOUR\_\_**\_\_Push technology\_\_\_\_\_\_\_\_\_\_

(explain how it is helping in the above process)

*The automated voice – activated system took in the information about them (they were stuck in traffic and going to miss their flight) and pushed a product/service on them that it knew would suit their needs, Most likely Air France was the company doing the pushing because it is not the same airline they were planning on taking. It helped them find alternative transportation.*

Ques #5

P & B is a defense contractor and every employee has to pass security clearance. They recently fired John Doe who they believe was copying sensitive data from their files. John claims he is innocent. P &B has quarantined his computer. They do find some altered file in their database but are not sure if John altered them. You are a Computer forensics expert and have been hired by P & B to investigate this further.

Identify the FOUR steps involved in Forensic investigation and how you will proceed in this case. Must relate steps to the case to get full credit. Generic answers will not get much credit.

(5 points)

*Collection: The computer is already quarantined so now they need to examine the surroundings of the computer and take digital pictures to start documenting all the available data. They will need to locate passwords and then any of storage devices that John Doe might have tried to use (C-ds, PDAs, photocopies, etc.) They will need to take a forensic image copy of every item. Obviously they should check his documents folders and recent documents. They need to pull every fine related to the sensitive information that the feel he was copying.*

*They should make sure to look at the deleted files and the slack space between files to see if he tried to cover up what he had done*

*Authentication: Of course in collection the information, no one should turn the computer on because the operating system will perform changes to the files. They will need to remove the hard drive which they can connect to special forensic software. This ensures that the electronic evidence has not been tampered with. More specifically there will be a MD5 Hah value for his computer hard drive that only changes when something changes on the hard drive.*

*Preservation: They will need to make sure that the MD5 Hash value doesn’t change and the electronic evidence is kept secure. If some of the evidence from John’s desk cannot be physically removed, an exact copy must be made. All evidence needs to be preserved for the next step.*

*Examination: They should use digital forensics programs to analyze the history of file activity and follow the trail of clues to build the case of P & B vs. John Doe’s. They will be able to recover a lot of files they were “deleted” and hopefully they will see a file that has his name on it matching the description of the file that they say has been altered. They may even be able to find out when alterations were made. The objective is to prove John innocent or guilty.*Ques #6

Ben & Jerry’s, located in Waterbury, Vermont, produces 190,000 pints of ice cream and frozen yogurt daily to ship to over 50,000 grocery stores in the united states and 12 other countries. Every single pint is meticulously tracked, first by being entered into an ACCESS database with the information carefully organized. Ben & Jerry uses a sophisticated data-mining tool set from a company called Business Objects to track customer tastes.

Answer the following:

1. assuming following tables identify Primary (PK) and foreign key (FK)s of the following tables.

ICECREAM table

|  |  |  |  |
| --- | --- | --- | --- |
| Ice\_cream\_type | price | years\_first offered | total\_sales |
|  |  |  |  |
| Vanilla | $2/scoop | 1981 | $45M |
| Cherry | $3/scoop | 1976 | $45M |
| Chocolate | $3/scoop | 1981 | $60M |
|  |  |  |  |

INGREDIENT

|  |  |  |
| --- | --- | --- |
| Ingredient \_name | Ice\_cream\_type | quantity\_used |
|  |  |  |
| Vanilla beans | Vanilla | 20 oz |
| Vanilla beans | Cherry | 20 oz |
| Cherry pits | Cherry | 30 oz |
| Etc… |  |  |

(4 points)**a.**

**PK of ICECREAM table** Ice Cream Type

**PK of INGREDIENT table** Ingredient name

**FK of INGREDIENT table**  Ice Cream type

**FK of ICE CREAM table**  Ice Cream Type?

1. Draw the relationship (1:1 or 1M or m:n) between ICECREAM and INGREDIENT table. (see page 375) and justify it.

INGREDIENT

ICECREAM

 *The relationship is 1:m. There are certain ingredients that can be used to make many ice cream flavors. The ingredients are used to create ice cream*

*(2 points)*

1. Write a query in SQL to get the names of different ice cream types and the years they were first offered in SQL

(2 points)

*SELECT Year first offered, Ice Cream Types FROM Ice Cream Table WHERE Listed in year order.*

Ques #7. Companies are moving towards internet advertising and joining social networking web sites like Facebook, Myspace, Twitter to market their products. One factor they found to be very important is ‘portability”. Identify how portability can help a company tap into new markets. Discuss this in relation to **value chain and Porter’s model.**

(5 points)

*Portability can help a company tap into new markets by adding value to the product or service. The added value from portability may come in many different ways. For example, portability for marketing and sales could create value an so could portability for operations. Using technology to advance the processes could help open up a new niche.*

*People want the convenience of portability in most things. So when they are looking to purchase a product or service and the company offers portability when others do not, that company experiences high Supplier power. Porter also discussed the importance of differentiation and portability could give a brand or company that edge.*