CSC 290H5 F 2018 Midterm Test
Duration — 60 minutes
Aids allowed: none

**Student Number:** |⎵⎵⎵⎵⎵⎵⎵⎵⎵⎵⎵|

**UTORid:** |⎵⎵⎵⎵⎵⎵⎵⎵⎵|

**Last Name:** _____     **First Name:** _____

Lecture Section:  L0102
Test Version:     C
Instructor:       Lisa Zhang

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*Do **not** turn this page until you have received the signal to start.*
(Please fill out the identification section above, **write your name on the back
of the test, and on the Scantron sheet,**, and read the instructions below.)
*Good Luck!*

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This midterm is double-sided, and consists of 25 multiple choice, and 2 short-
answer questions. *When you receive the signal to start, please make sure
that your copy is complete.*

- No aids are permitted for this midterm.

- Answer multiple choice questions using the Scantron sheet provided,
  using a pencil.

- Write the Test Version (C) on the Scantron sheet provided.

- There is a blank page at the end of the exam for rough work.

- If you use any space for rough work, indicate clearly what you want
  marked.

- **Do not remove any pages from the exam booklet.**

# 1: _____/25

# 2: _____/ 6
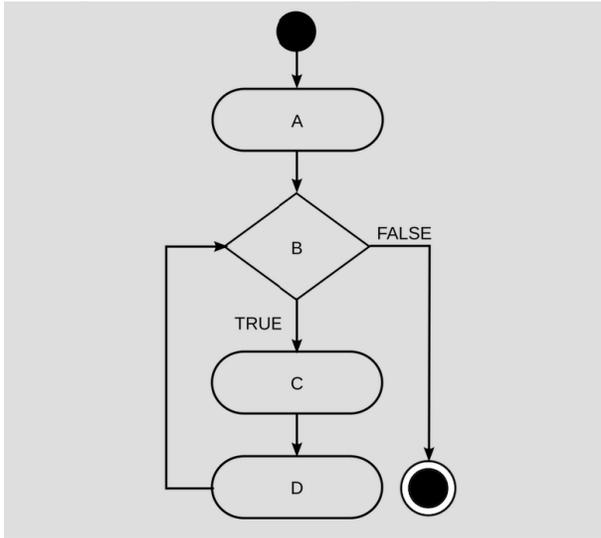
# 3: _____/ 4

TOTAL: _____/35

## Question 1.    [25 marks]

Answer the following multiple choice questions on the Scantron sheet using a pencil. Only select one best answer per question.

1. Which of the following affects the interpretation of a message?

   (A) The tone of the message.
   (B) The size of the font.
   (C) Use of a monospace font.
   (D) The use of humour.
   (E) All of the above.

2. Why is the structure of a message important to consider when communicating?

   (A) Structure gives a sense of the sender's age.
   (B) Structure tells readers what parts of the message they can skip.
   (C) Structure gives guidance on the appropriate font.
   (D) Structure affects the timing of communication.
   (E) Structure affects who the audience might be.

3. What might be wrong with the following reasoning: "Third year CS students write better than first year CS students, therefore CSC290 improved student writing skills"?

   (A) The sample is biased.
   (B) The question asked might leading.
   (C) The sample size is inappropriate.
   (D) Correlation does not imply causation.
   (E) The analogy is inappropriate.

4. The math department surveys 100 calculus students at the end of the term, and asks "Is this course too hard?" Which of the following is **not** a potential issue with this methodology?

   (A) The question is leading.
   (B) Correlation is not causation.
   (C) There is survivership bias.
   (D) Students might not answer honestly.
   (E) All of the above are potential issues.

5. Jane believes that everyone should learn to code, because coding teaches thinking. Mark disagrees. He notes that historically, the same reasoning justified teaching Latin to all university students. Mark is committing the following fallacy:

   (A) Mark cannot sample all university students.
   (B) Mark's data about Latin is outdated, and should not be used for a discussion in 2018.
   (C) Mark's analogy is inappropriate because Latin is a natural language.
   (D) All of the above.
   (E) None of the above.

6. You collect a database of UTM students and their daily habits. You look at several hundred habits, and find a correlation between eating 2 or more chocolate bars a day, and a commute shorter than 30 minutes. What is wrong with your methodology?

   (A) You are encouraging the consumption of chocolate, which will increase obesity.
   (B) There is no mention of sample size.
   (C) Nothing. This is an interesting finding!
   (D) The sample only consists of UTM students and not other students.
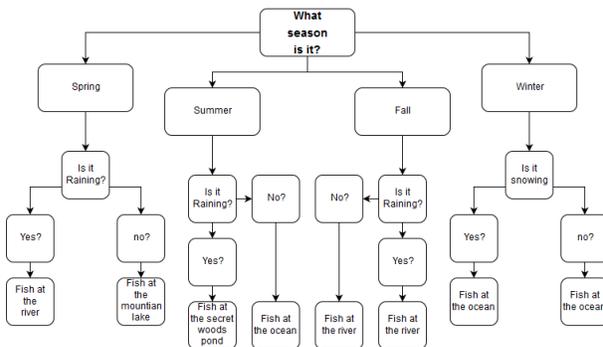   (E) The correlation is likely spurious since you looked at many pairs of habits.

7. Which of the following is a good thing to happen, in the context of project management?

(A) Tasks that are in scope are completed.

(B) The project manager disappears without a trace.

(C) New requirements are elicited.

(D) Tasks that are out of scope are completed.

(E) A new stakeholder is found.

8. Which of the following about Project Management is **true**?

(A) Every project has a project charter written by a project manager.

(B) The business analyst and the project manager should be different people.

(C) A software developer should never act as the project manager.

(D) The project manager should elicit the requirements.

(E) The project manager should have a clear idea of what tasks are out of scope.

9. A dental office is determining whether or not to work with a software developer to digitalize their patient records. Which of the following is **not** a stakeholder?

(A) The dentists.

(B) The software developer.

(C) The receptionists.

(D) The patients.

(E) All of the above are stakeholders.

10. What information is included in the Gantt Chart, but not in a Work Breakdown Structure?

(A) Task begin date

(B) Task end date

(C) Task dependencies

(D) Whether tasks can be done in parallel

(E) All of the above

11. You would like to buy a new computer. Which of the following is **not** a milestone?

(A) Deciding which computer to buy.

(B) Determining a budget.

(C) Deciding where to buy the computer.

(D) Asking for your friend's advice.

(E) All of the above are milestones.

12. Which of the following pseudocode fragments corresponds to the following UML diagram?



(A) `A; IF(B) {C; D;}`

(B) `A; IF(B) {C;} D;`

(C) `WHILE(A, B) {C; D;}`

(D) `A; WHILE(B) {C;} D;`

(E) `A; WHILE(B) {C; D;}`

13. What kind of UML diagram is this?



(A) Object diagram

(B) Class diagram

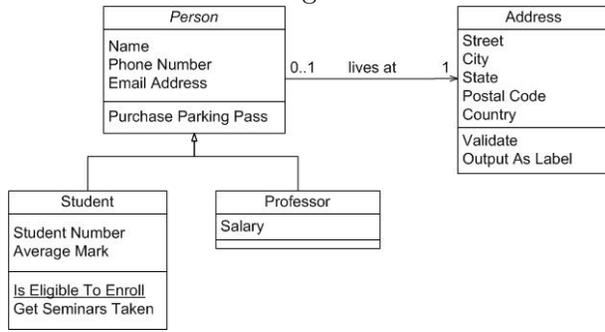(C) Activity diagram

(D) Use Case diagram

(E) None of the above

14. Which of the following is the most appropriate label for a use case in a UML Use Case Diagram?

(A) Create Order

(B) Manage New Request

(C) Database Restart

(D) All of the above

(E) None of the above

15. Which of the following statement about a UML User Case Diagram is **true**?

(A) An actor is always a person.

(B) An actor should be associated with exactly one use cases.

(C) A use case should always be associated with one actor.

(D) None of the above is true.

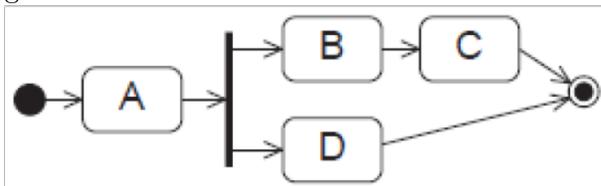(E) All of the above are true.

16. What kind of UML diagram is this?

    

    (A) Object diagram
    (B) Class diagram
    (C) Activity diagram
    (D) Use Case diagram
    (E) None of the above

17. Which of the following can be depicted using a UML Activity Diagram?

    (A) The Java classes that supports an activity.
    (B) The breakdown of tasks for organizing a concert.
    (C) Different activites that the library website supports.
    (D) A Gantt chart.
    (E) How to use the Java debugger.

18. What is **true** about the following UML diagram?

    

    (A) This is a class diagram.
    (B) There is a fork, but no join.
    (C) There is a join, but no fork.
    (D) B, C must be completed before D.
    (E) C must be the last task to be completed.

19. According to "The Pragmatic Programmer", what should a programmer do when they think something a client wants can't be done?

    (A) Provide reasons.
    (B) Provide alternative options.
    (C) Provide a cat.
    (D) The business analyst should deal with such issues.
    (E) The project manager should deal with such issues.

20. According to "The Pragmatic Programmer", the following is **true** about communication?

    (A) The process we go through to produce documents is important, and we should involve the audience when possible.
    (B) We should concentrate solely on content when producing written documents.
    (C) Avoid email responses like "I'll get back to you later."
    (D) The most difficult part about writing is choosing the style: some people will prefer factual styles, others will appreciate flowery language.
    (E) Two or more of the above are true.

21. What was the main conclusion in "Seven Reasons IT Projects Fail"?

(A) Most IT projects fail because of poor choice of tools.
(B) Most IT projects fail because of lack of coffee.
(C) Most IT projects fail because of poor project management.
(D) Most IT projects fail because of lack of resources.
(E) Most IT projects fail because of technical challenges.

22. Which of the following is the best rephrasing of the following sentence: "Due to the fact that customers have requested additional information, a team will be assigned to rewrite the documentation."?

(A) The fact that customers requested additional information means we have to rewrite the documentation.
(B) They requested additional information, so a team will rewrite it.
(C) Customers requested additional documentation, so a team will rewrite the documentation.
(D) Due to the fact that the customers requested additional information, a team will rewrite the documentation.
(E) Customers requested documentation, so a team will rewrite.

23. Which of the following is the best rephrasing of the following sentence: "The service level agreement does not provide anything more than 99.9% availability."?

(A) The service level agreement does not provide any more than 99.9% availability.
(B) The service level agreement provides an availability of not more or less than 99.9%.
(C) The service level agreement provides less than 99.9% availability.
(D) The agreement provides 99.9% availability.
(E) The service level agreement provides only 99.9% availability.

24. What is wrong with the following sentence: "Studying before the midterm effected you're grades in a positive way."?

(A) The word "you're" is incorrect.
(B) The word "effected" is incorrect.
(C) The word "positive" is incorrect.
(D) Both (a) and (b)
(E) Both (b) and (c)

25. What aspect of following sentence can be improved: "The authors made an assumption that the businesses they chose would be representative of the entire IT industry."?

(A) The phrase "made an assumption" can be replaced with the word "assumed".
(B) The phrase "would be representative" can be replaced with the word "represents".
(C) The phrase "would be representative" can be replaced with the word "represent".
(D) Both (a) and (b)
(E) Both (a) and (c)

## Question 2.  [6 marks]

A shoe store owner wants you to build an application to catalog their inventory, and sent you the following email. Draw a UML Use Case Diagram of the application to summarize the email. Do not add any use cases that are not mentioned.


Hello,

I own a shoe store and want you to build an application to catalog my
inventory. It's a little tricky because not only do I want to track sales
and returns, I also want to track when a customer is trying on shoes.
My clerks and I should be able to track when a shoe is being tried on,
and track when a shoe goes back into inventory. We want to also be able
to track sales and returns. I personally do inventory every few days,
so it would be nice to be able to print off a spreadsheet of our entire
store inventory. Only I should be able to record stolen merchandise.

Shoe Store Owner

## Question 3.   [4 marks]

Suppose you are writing a Project Charter for your group presentation project. What headings would you include? List at least 8 headings or subheadings, in an appropriate order. (You do not need to write any content.)

Use this page for rough work.

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