CSC 290H5 F 2018 Midterm Test - Group
Duration — 30 minutes
Aids allowed: none

Sample Solutions

Full Name: _____   UTORid: |__|__|__|__|__|__|__|__|__|__|

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Lecture Section: L0101
Test Version: G1
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 names on the back
of the test, and the name of the first group member on the Scantron
sheet**. Read the instructions below.)
Good Luck!

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 (G1) on the Scantron sheet provided.

- On the Scantron sheet, write only the full name of the group member
  appearing at the **top** of the page.

- 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

Total Pages = 10

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. In the SMCR model of communication, which of the following is **not** an example of structure?

    (A) An essay should have an introduction.
    (B) Comic sans should only be used for humour.
    (C) Websites should have a navigation bar.
    (D) Emails should have a subject.
    (E) A project charter should have section headers.

2. Why are paragraphs important?

    (A) Paragraphs provides context as to whether you are close to the end of the text.
    (B) Paragraphs make printing costs lower.
    (C) Paragraphs help determine the appropriate colour to use.
    (D) Paragraphs make it easier to scan for important information.
    (E) Paragraphs make text look poetic.

3. 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.

4. The department surveys 100 calculus students at the end of the term, and asks "Is this course too hard?" This questions is leading. A better question would be:

    (A) How would you rate is this course in terms of difficulty?
    (B) Would you consider this course to be very easy?
    (C) What made this course difficult?
    (D) Is this course very difficult?
    (E) Is this course much easier than other courses?

5. A CS student concludes that learning the programing language Racket is useless because he has never seen professional programmers use Racket. This is an example of:

    (A) A leading question.
    (B) Inappropriate analogy.
    (C) Inappropriate appeal to authority.
    (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) The sample only consists of UTM students and not other students.
    (D) Nothing. This is an interesting finding!
    (E) The correlation is likely supurious since you looked at many pairs of habits.

7. 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.

8. What poor result can occur if the project scope is not clearly defined?

(A) Tasks that are in scope might become a part of the project.

(B) Tasks that are out of scope might become a part of the project.

(C) Developers might forget to complete tasks that are out of scope.

(D) The business analyst might not build a project charter.

(E) None of the above.

9. You are building an online store for a shoe company. Which of the following **cannot** be a deliverable?

(A) A use case diagram.

(B) The website template design.

(C) A written estimate (of how long the project will take, and how much it will cost).
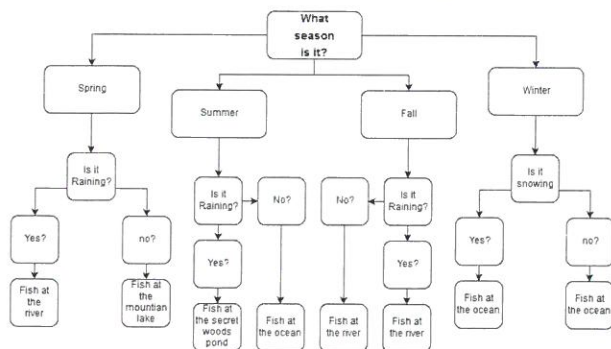
(D) Support for the website once it launches.

10. Why do we use the term "requirement elicitation" rather than "requirement gathering"?

(A) Because clients might not be aware of all requirements.

(B) Because requirements can often conflict with each other.

(C) Because it is unprofessional to ask clients to provide a list of requirements.

(D) Because "elicitation" sounds more "professional".

(E) Because requirements should be analyzed, not just listed.

11. The University of Whatever has a project to determine whether or not to offer Office 365 to their students. Which of the following is a stakeholder?
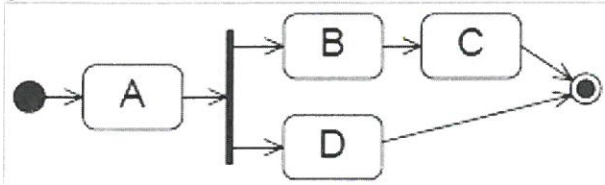
(A) The university police.

(B) The university's admissions office.

(C) The university's technical support office.

(D) Office 365 vendors.

(E) The coffee shop downstairs.

12. 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
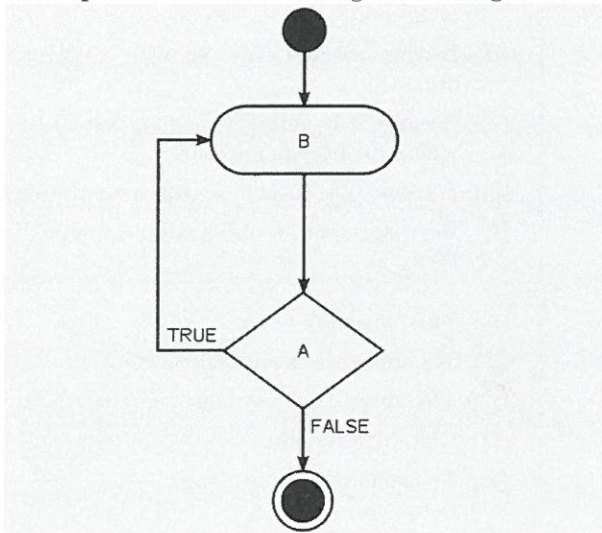
13. What is **true** about the following UML diagram?

(A) D must be completed before C.
(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) This is a use case diagram.

14. Which of the following statements about a UML User Case Diagram is **false**?

(A) Use cases are usually associated with an actor.
(B) Use cases should be labelled with words such as "manage" and "perform".
(C) Use cases represent a major piece of system functionality.
(D) A Use Case diagram is a set of scenarios tied together by a common user goal.
(E) A use case can extend or include another use case.

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

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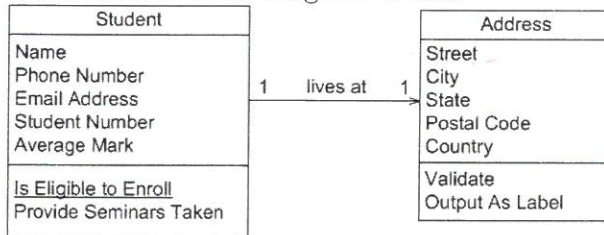(C) `WHILE(B) { A; }`
(D) `B; IF(A) { B; }`
(E) `B; WHILE(A) { B; }`

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

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

17. In the context of UML, Which of the following statements about swimlanes is **true**?

(A) Swimlanes are used in Activity Diagrams to show who performs each action.

(B) Swimlanes are used in Use Case Diagrams to show different parts of a system.

(C) Swimlanes are used in Activity Diagrams to show temporal elements.

(D) Swimlanes are used in Use Case Diagrams to show different parts of a system.

(E) Swimlanes are used in Class Diagrams to show who performs each action.

18. What kind of UML diagram is this?

Student
Name
Phone Number
Email Address
Student Number
Average Mark
Is Eligible to Enroll
Provide Seminars Taken

1 lives at 1

Address
Street
City
State
Postal Code
Country
Validate
Output As Label

(A) Object diagram

(B) Class diagram

(C) Activity diagram

(D) Use Case diagram

(E) None of the above

19. In "The Pragmatic Programmer", what does it mean to not "live with broken windows"?

(A) Fix poor code as soon as it is discovered.

(B) Fix bad design as soon as it is discovered.

(C) Fix small issues as soon as they are discovered.

(D) All of the above

(E) None of the above

20. According to "The Pragmatic Programmer", the following is **true** about building your knowledge portfolio.

(A) It is preferable to know one thing deeply rather than know many different things.

(B) Good programmers should be able to identify emerging technology before it becomes popular.

(C) Programmers should not waste their time on non-technical books.

(D) All of the above.

(E) None of the above.

21. In "Seven Reasons IT Projects Fail", how should a team avoid "Poor or Missing Methodology and Tools"?

(A) Set up minimum once-per-week meetings for the project.

(B) Avoid solving problems too early to save time.

(C) Ask team members to estimate time required to complete tasks.

(D) All of the above.

(E) None of the above.

22. Which words should be used to fill in the below sentence: "Everyone (   ) the junior developer noticed the (   ) bug"?

(A) accept, allusive

(B) accept, elusive

(C) except, allusive

(D) except, elusive

(E) None of the above.

23. What is wrong with the following sentence: "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).

24. 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 agreement provides 99.9% availability.

(B) The service level agreement provides less than 99.9% availability.

(C) The service level agreement provides an availability of not more or less than 99.9%.

(D) The service level agreement does not provide any more than 99.9% availability.

(E) The service level agreement provides only 99.9% availability.

25. What is wrong with the following sentence: "The fact that our analysis used a kind of advanced statistics made it hard to understand"?

(A) The phrase "the fact that" is unnecessarily wordy.

(B) The phrase "a kind of" should be removed

(C) The phrase "hard to undertand" should be replaced with the word "difficult"

(D) Both (a) and (b).

(E) All of (a), (b), (c) are true.

Question 2.   [6 MARKS]

A shoe store owner wants you to build a website for their loyalty members, and sent you the following email. Draw a UML Use Case Diagram of the website to summarize the email. Do not add any use cases that are not mentioned.
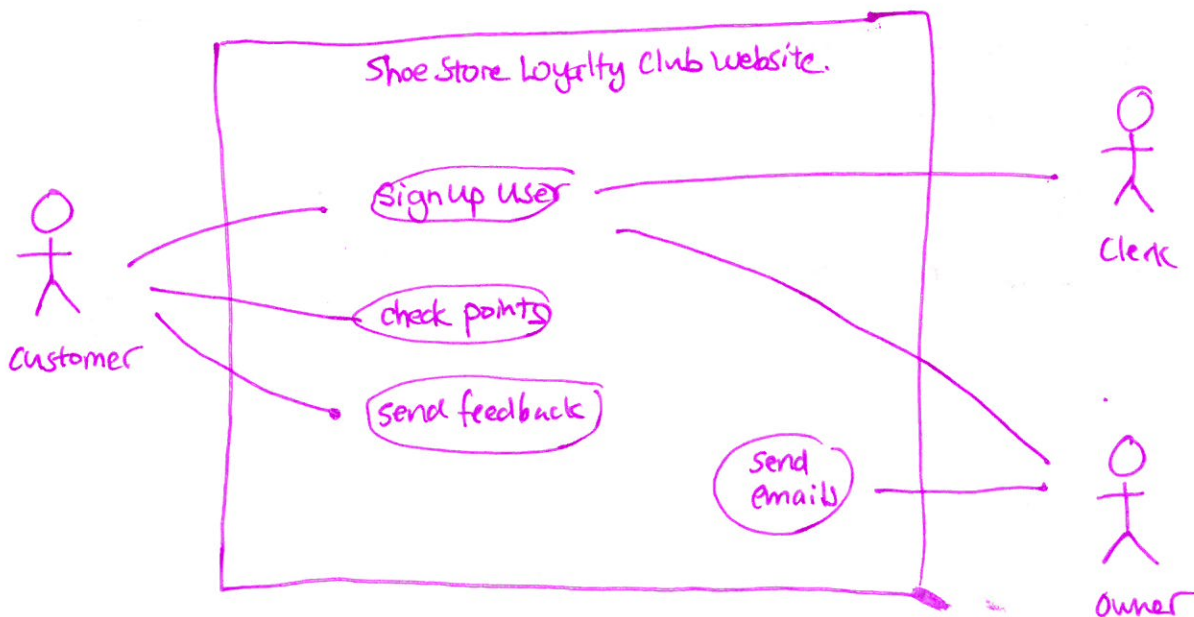
```
Hello,

I own a shoe store and want you to build a website for my loyalty club
members. Customers should be able to sign up, and receive a physical
card in the mail. My clerks and I should also be able to sign up
customers in the store. In that case, the customer will fill in a paper
form and receive a card right away, and the staff will use the website
to sign up the user after the fact using an admin panel.

After they are signed up, users should be able to check their
reward points, and send us feedback online.
I would also like to be able to send emails to loyalty club members
through the website.

Shoe Store Owner
```

Question 3. [4 MARKS]

Construct a Work Breakdown Structure of your group presentation project, with at least 8 tasks and subtasks. At least 2 tasks should be subtasks of another. (You do not need to annotate your tasks in any way.)

- Write Team Charter

- Plan Presentation
  ↳ Find Reputable Sources
  ↳ Analyze audience needs.
  ↳ Determine Goals & messaging
  ↳ Write presentation Plan

- Make Presentation Slides
  ↳ Find relevant images
  ↳ Combine slides

- Practise Presentation

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